

GenCore version 5.1.7  
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OM protein - protein search, using sw model

Run on: February 3, 2006, 20:23:29 ; Search time 202 Seconds  
(without alignments)  
700.396 Million cell updates/sec

Title: US-10-747-702-3

Perfect score: 1691  
Sequence: 1 MDPPIPVIGTKLTPIINGREE.....EGCGWLPORTLELSSKLEQ 322

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 2443163 seqs, 439378781 residues

Total number of hits satisfying chosen parameters: 2443163

Minimum DB seq length: 0  
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : A\_Geneseq\_21:\*  
1: geneeqp1980s:\*  
2: geneeqp1990s:\*  
3: geneeqp2000s:\*  
4: geneeqp2001s:\*  
5: geneeqp2002s:\*  
6: geneeqp2003as:\*  
7: geneeqp2003bs:\*  
8: geneeqp2004s:\*  
9: geneeqp2005s:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1691	100.0	322	2	AAV30159 Human dor
2	1691	100.0	322	9	ADW46672 Human SNS
3	1647	97.4	322	3	AAV90762 Human G P
4	1647	97.4	322	5	AD116994 Human NOV
5	1647	97.4	322	5	AD116999 Human NOV
6	1647	97.4	322	7	ADCB6821 Human GPC
7	1647	97.4	322	8	AD044604 Human HIT
8	1642	97.1	322	5	AAV90761 Human G P
9	1642	97.1	322	5	ABJ04077 Human G P
10	1642	97.1	322	5	AAE21286 Human Mrg
11	1642	97.1	322	5	AD116993 Human NOV
12	1642	97.1	322	5	AD116998 Human NOV
13	1642	97.1	322	6	ABP81750 Human G P
14	1642	97.1	322	8	ADH08535 Human G P
15	1642	97.1	322	8	AD044602 Human HIT
16	1642	97.1	322	8	AD029705 Human GPC
17	1642	97.1	322	9	ADM02571 Human GPC
18	1642	97.1	322	5	AAU97558 Human G-P
19	1642	97.1	322	5	ADP70481 Orphan re
20	1637	96.8	322	8	ADP29105 Human GPC
21	1628	96.3	322	3	AAH14846 Human nov
22	1571	92.9	322	2	AAV30160 Human dor
23	1571	92.9	322	9	ADM02576 Human sen
24	1527	90.3	302	6	ABP66695 Human G P

25	1395	82.5	322	2	AAV30161 Human dor
26	1395	82.5	322	9	ADW02566 Human sen
27	1381	81.7	322	2	AAV30162 Human dor
28	1375	81.3	304	7	ADC12766 Human GPC
29	1375	81.3	322	3	AAV87664 Human G P
30	1375	81.3	322	7	ADC17728 Human TGR
31	1373	81.2	322	4	AAE64294 Human GTP
32	1373	81.2	322	4	AAE12794 Human G P
33	1373	81.2	322	4	AAU04371 Human G-P
34	1373	81.2	322	5	AAE17074 Human G-P
35	1373	81.2	322	5	ABP95617 Human GPC
36	1373	81.2	322	5	AAE21288 Human Mrg
37	1373	81.2	322	5	AD116991 Human NOV
38	1373	81.2	322	5	AD116936 Human NOV
39	1373	81.2	322	5	AD116997 Human NOV
40	1373	81.2	322	6	ABP96696 Human G P
41	1373	81.2	322	6	ABP959266 Human G P
42	1373	81.2	322	7	ADC86445 Human GPC
43	1373	81.2	322	7	ABW00803 Human GPC
44	1373	81.2	322	7	ADL96466 Human G P
45	1373	81.2	322	8	ADH08520 MrgX1. 3/

## ALIGNMENTS

RESULT 1	AAV30159	standard; protein; 322 AA.
ID	AAV30159	
XX	AAV30159	
AC	AAV30159	
XX	20-MAR-2003 (revised)	
DT	26-NOV-1999 (first entry)	
XX	Human dorsal root receptor 1 hDRR1.	
DE	Human dorsal root receptor 1 hDRR1.	
XX	Dorsal root receptor; dorsal root ganglia; G-protein coupled receptor;	
KW	hDRR1; central nervous system; CNS; anaesthesia; analgesia; neuron; pain.	
XX	Homo sapiens.	
OS	Homo sapiens.	
XX	WO9932519-A1.	
XX	01-JUL-1999.	
PD	16-DEC-1998; 98WO-SE002348.	
XX	22-DEC-1997; 97SE-00004836.	
PR	(ASTR ) ASTRA PHARMA INC.	
PA	(ASTR ) ASTRA AB.	
XX	Ahmed S, Barville D, Fortin Y, Lembo P, O'donnell D, Shen S;	
PI	WPI; 1999-405162/34.	
XX	N-PSDB; AAZ10067.	
DR	Rat and human dorsal root receptors and related polynucleotides, useful	
XX	for identifying agents for anesthesia and analgesia.	
PT	Claim 6; Page 39-41; 72PP; English.	
PS	This is the human dorsal root receptor 1 (hDRR1) protein sequence. This	
XX	is a G protein coupled receptor that is expressed preferentially in	
CC	dorsal root ganglia. hDRR1 can be used to create antipeptides against	
CC	hDRR1. The dorsal root ganglia area of the central nervous system (CNS)	
CC	is densely innervated with primary or afferent neurons involved in	
CC	transmission, modulation and sensation of pain. The DRP's which are	
CC	expressed in this region of the CNS may be used for assays for the	
CC	identification of new agents for anaesthesia and analgesia. (Updated on	
CC	20-MAR-2003 to correct PA field.)	

Sequence 322 AA;

Query Match 100.0%; Score 1691; DB 2; Length 322;  
 Best Local Similarity 100.0%; Pred. No. 2.4e-175; Indels 0; Gaps 0;  
 Matches 322; Conservative 0; Mismatches 0;

QY 1 MDPTIPVLGKTLTPINGREETPCYNQTLSTFTGLTCTIISVALTGNAVVMMLGCRMRNA 60  
 DB 1 MDPTIPVLGKTLTPINGREETPCYNQTLSTFTGLTCTIISVALTGNAVVMMLGCRMRNA 60

QY 61 VSIYIINLVAAANFLFSGHIIISPLPLINIRHPISKILSPWTFPFYIGLSMLSAISTER 120  
 DB 61 VSIYIINLVAAANFLFSGHIIISPLPLINIRHPISKILSPWTFPFYIGLSMLSAISTER 120

QY 121 CLSIIMPWYHCRPRYLSVSWCVLMAALSLSRIEMFCDPLFSGANSWVCETSDFTT 180  
 DB 121 CLSIIMPWYHCRPRYLSVSWCVLMAALSLSRIEMFCDPLFSGANSWVCETSDFTT 180

QY 181 IAWLVFLCVLGGSSVLVLRILCGSRKMPFLRYVTIILTVLVFLCGLPFGIQWALPS 240  
 DB 181 IAWLVFLCVLGGSSVLVLRILCGSRKMPFLRYVTIILTVLVFLCGLPFGIQWALPS 240

QY 241 RIHLDMKVLFCYHVLVIFLSALNSSANPIYFVFGSFQORONRQMLKVLQALDTPB 300  
 DB 241 RIHLDMKVLFCYHVLVIFLSALNSSANPIYFVFGSFQORONRQMLKVLQALDTPB 300

QY 301 VDEGGGMLPQETLELSGSKLEQ 322  
 DB 301 VDEGGGMLPQETLELSGSKLEQ 322

RESULT 2  
 ADM46672  
 ID ADM46672 standard; protein; 322 AA.

AC ADM46672;  
 XX 24-MAR-2005 (first entry)  
 DT Human SNSR1 polypeptide.  
 DE  
 XX  
 XX Sensory neuron-specific G protein-coupled receptor 1; SNSR1;  
 KW 9-protein coupled receptor; gpcr; diagnosis; cardiovascular disease;  
 KW gastrointestinal disease; liver disease; cancer; neoplasm; inflammation;  
 KW hematological disease; respiratory disease; neurological disease;  
 KW genitourinary disease; cardiovascular; gen.; candida; vasotropic;  
 KW antiatherogenic; antiarteriosclerotic; hypotensive; gastrointestinal; gen.;  
 KW antiinflammatory; anticancer; hepatotoxic; antiallergic; dermatologic;  
 KW chymotremetic; immunosuppressive; antianemic; cytosstatic; hemostatic;  
 KW antiasthmatic; respiratory-gen.; cns-gen.; antiparkinsonian; nootropic;  
 KW neuroprotective; cerebroprotective; nephroprotective; utropachic; receptor.  
 XX  
 XX Homo sapiens.  
 OS  
 XX WO2004111642-A2.  
 PN  
 XX 23-DEC-2004.  
 PD  
 XX 04-JUN-2004; 2004WO-EP006076.  
 PF  
 XX 16-JUN-2003; 2003EP-00013598.  
 PR  
 XX (FARB ) BAYER HEALTHCARE AG.  
 PA  
 XX Golz S, Brueggemeier U, Summer H;  
 PI WPI, 2005-057894/06.  
 DR N-PSDB; ADM46671.  
 DR  
 XX screening for therapeutic agents, useful for treating e.g.,  
 PT cardiovascular disorders, comprises contacting a test compound with  
 PT sensory neuron-specific G protein-coupled receptor 1 (SNSR1) polypeptide  
 PT and detecting binding.

XX Disclosure; SEQ ID NO 2; 122pp; English.  
 PS  
 XX The invention relates to a method of screening for therapeutic agents for  
 CC treating diseases associated with sensory neuron-specific G protein-  
 CC coupled receptor 1 (SNSR1). The method comprises contacting a test  
 CC compound with SNSR1 polypeptide or polynucleotide and detecting the  
 CC binding of the test compound to SNSR1 polypeptide or polynucleotide, or  
 CC determining the SNSR1 polypeptide activity (a) at a certain test compound  
 CC concentration, (b) in the absence of the test compound, or (c) at a  
 CC different concentration of the test compound. Also described are (i) a  
 CC method of diagnosing a disease defined above in a mammal, (ii) a  
 CC pharmaceutical composition for the treatment of the disease above  
 CC comprising the SNSR1 polypeptide, (iii) a SNSR1 polynucleotide, or a  
 CC therapeutic agent which binds to the SNSR1 polypeptide or which regulates  
 CC the SNSR1 polypeptide activity such as a small molecule, an RNA molecule,  
 CC an antisense oligonucleotide, a polypeptide, an antibody, or a ribozyme,  
 CC and (iv) a method for the preparation of a pharmaceutical composition  
 CC useful for treating the above diseases. The SNSR1 regulatory compounds  
 CC are useful for preparing a pharmaceutical composition for treating  
 CC diseases such as cardiovascular disorders, gastrointestinal and liver  
 CC diseases, cancer disorders, inflammatory diseases, hematological  
 CC disorders, respiratory diseases, neurological disorders, or urological  
 CC disorders in a mammal. They are also useful for the regulation of SNSR1  
 CC activity in a mammal having the disease. Cardiovascular diseases include  
 CC heart failure, myocardial infarction, ischemia, arrhythmias, and  
 CC atherosclerosis. Liver diseases include jaundice, Crigler-Najjar,  
 CC cholestasis, hepatomegaly, Reye's syndrome. Examples of gastrointestinal  
 CC diseases are dysphagia, Barrett's metaplasia, stress gastritis, gastric  
 CC ulcers, and chronic pancreatitis. Inflammatory diseases include atopic  
 CC diseases, allergic rhinitis or conjunctivitis, hereditary angioedema,  
 CC Hashimoto's thyroiditis, systemic lupus erythematosus and scleroderma.  
 CC Hematological diseases include anemia, myeloproliferative disorders,  
 CC hemorrhagic disorders, leukopenia, leukemia, and lymphomas. Respiratory  
 CC diseases can be asthma or chronic obstructive pulmonary disease.  
 CC Neurological disorders include Parkinson's disease, dementia, multiple  
 CC sclerosis, stroke, and Alzheimer's disease. Urological disorders include  
 CC renal transplant rejection, lupus nephritis, glomerulopathies, nephritis,  
 CC and erectile dysfunction. The nucleotide sequences encoding SNSR1 are  
 CC useful as hybridization probes, in constructing oligomers for PCR, for  
 CC chromosome and gene mapping, in the recombinant production of SNSR1, in  
 CC generating antisense DNA or RNA and in molecular biology techniques that  
 CC have not yet been developed. The SNSR1 polypeptide is useful for  
 CC immunizing a mammal to produce polyclonal antibodies and for diagnostic  
 CC purposes. This sequence represents human SNSR1.

XX  
 XX Sequence 322 AA;  
 SQ

Query Match 100.0%; Score 1691; DB 2; Length 322;  
 Best Local Similarity 100.0%; Pred. No. 2.4e-175; Indels 0; Gaps 0;  
 Matches 322; Conservative 0; Mismatches 0;

QY 1 MDPTIPVLGKTLTPINGREETPCYNQTLSTFTGLTCTIISVALTGNAVVMMLGCRMRNA 60  
 DB 1 MDPTIPVLGKTLTPINGREETPCYNQTLSTFTGLTCTIISVALTGNAVVMMLGCRMRNA 60

QY 61 VSIYIINLVAAANFLFSGHIIISPLPLINIRHPISKILSPWTFPFYIGLSMLSAISTER 120  
 DB 61 VSIYIINLVAAANFLFSGHIIISPLPLINIRHPISKILSPWTFPFYIGLSMLSAISTER 120

QY 121 CLSIIMPWYHCRPRYLSVSWCVLMAALSLSRIEMFCDPLFSGANSWVCETSDFTT 180  
 DB 121 CLSIIMPWYHCRPRYLSVSWCVLMAALSLSRIEMFCDPLFSGANSWVCETSDFTT 180

QY 181 IAWLVFLCVLGGSSVLVLRILCGSRKMPFLRYVTIILTVLVFLCGLPFGIQWALPS 240  
 DB 181 IAWLVFLCVLGGSSVLVLRILCGSRKMPFLRYVTIILTVLVFLCGLPFGIQWALPS 240

QY 241 RIHLDMKVLFCYHVLVIFLSALNSSANPIYFVFGSFQORONRQMLKVLQALDTPB 300  
 DB 241 RIHLDMKVLFCYHVLVIFLSALNSSANPIYFVFGSFQORONRQMLKVLQALDTPB 300

QY 301 VDEGGGMLPQETLELSGSKLEQ 322

Db 301 VDEGGGMLPQETLELSGSKLEQ 322

RESULT 3  
AA90762

ID AA90762 standard; protein; 322 AA.

AC AA90762;

DT 18-AUG-2000 (first entry)

DE Human G protein-coupled receptor hH7T213V SEQ ID NO:2.

XX Human; G protein-coupled receptor; hippocampus; diagnosis; screening;  
KW genetic disease; cellular function regulation.

XX Homo sapiens.

OS WO200020455-A1.

PN 13-APR-2000.

PD 30-SEP-1999; 99WO-0P005366.

PR 01-OCT-1998; 98JP-00279535.

XX (TAKE ) TAKEDA CHEM IND LTD.

PI Watanabe T, Terao Y, Matsui H;

DR WPI; 2000-303747/26.

DR N-PSDB; AAA29812.

XX Human-derived G protein-coupled protein and encoding nucleic acid, useful  
PT e.g. in determining ligands and treatment of diseases associated with  
PT dysfunction of the protein.

PS Claim 2; Page 92-93; 97JP; Japanese.

XX The present sequence represents a human-derived G protein-coupled protein  
CC designated hH7T213V, which is isolated from the human hippocampus. The G  
CC protein-coupled receptor can be used for preventing, treating and  
CC diagnosing genetic diseases associated with G protein-coupled protein,  
CC and for regulating cellular functions. The protein can be used to prevent  
CC and treat disorders associated with G protein-coupled protein gene  
CC dysfunction. It can also be used to identify G protein-coupled protein  
CC ligands and generating antibodies and antisera against the protein. It is  
CC also useful in constructing recombinant receptor protein expression  
CC systems, developing receptor-binding assay systems and screening drug  
CC candidates, and can be used as a probe in the genetic diagnosis of G  
CC protein-coupled protein disorders

XX Sequence 322 AA;

Query Match 97.4%; Score 1647; DB 3; Length 322;

Best Local Similarity 97.5%; Pred. No. 1.5e-170;

Matches 314; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

QY 1 MDTTIPVLTGKLTPLNGREETPCYNQTSFTGLTCTIISLVALTGNAVIMLLGCRMRNA 60

Db 1 MDSTIPVLTGKLTPLNGREETPCYKQTLSTFTGLTCTIVSLVALTGNAVIMLLGCRMRNA 60

QY 61 VSIYILNIVAANFLPISGHIITFSPPLNIRHPISKIISPNWTFPPFTGLSMLSAISTER 120

Db 61 VSIYILNIVAANFLPISGHIITFSPPLNIRHPISKIISPNWTFPPFTGLSMLSAISTER 120

QY 121 CTSIIMPIWYHGRPRRYLSSVWCVLLMALSLRSILEMFCDFLFGANSVWCETSDFTT 180

Db 121 CTSIIMPIWYHGRPRRYLSSVWCVLLMALSLRSILEMFCDFLFGANSVWCETSDFTT 180

QY 181 IAWLVFLCVLTGSSSLVLTVLRLCGSRKMPLTRLYVTITLTVALVFLCGLPFGIQMALFS 240

181 IAWLVFLCVLTGSSSLVLTVLRLCGSRKMPLTRLYVTITLTVALVFLCGLPFGIQMALFS 240

Db 181 IAWLVFLCVLTGSSSLVLTVLRLCGSRKMPLTRLYVTITLTVALVFLCGLPFGIQMALFS 240

QY 241 RIHLDMKVLFCFHVHVSIFLSALNSSANPIYFVGSFQORONRNLKVLGRALQDTPE 300

Db 241 RIHLDMKVLFCFHVHVSIFLSALNSSANPIYFVGSFQORONRNLKVLGRALQDTPE 300

QY 301 VDEGGGMLPQETLELSGSKLEQ 322

Db 301 VDEGGGMLPQETLELSGSKLEQ 322

RESULT 4  
AD116994

ID AD116994 standard; protein; 322 AA.

AC AD116994;

DT 15-APR-2004 (first entry)

DE Human NOVX protein homologue SegID 530.

XX human; NOVX; cardiomyopathy; atherosclerosis; cancer; diabetes;  
KW inflammation; autoimmune disorder; allergy; blood disorder;  
KW acquired immunodeficiency syndrome; AIDS; obesity; asthma;  
KW immunoglobulin (Ig)A nephropathy; cirrhosis; arthritis;  
KW Alzheimer's disease; infection; str.

XX Homo sapiens.

OS WO200268649-A2.

PN 06-SEP-2002.

PD 31-JAN-2002; 2002WO-US002785.

PR 31-JAN-2001; 2001US-0265395P.

PR 31-JAN-2001; 2001US-0265412P.

PR 31-JAN-2001; 2001US-0265514P.

PR 02-FEB-2001; 2001US-0266406P.

PR 05-FEB-2001; 2001US-0266767P.

PR 07-FEB-2001; 2001US-0266757P.

PR 07-FEB-2001; 2001US-0267057P.

PR 08-FEB-2001; 2001US-0267459P.

PR 09-FEB-2001; 2001US-0267823P.

PR 15-FEB-2001; 2001US-0268974P.

PR 26-FEB-2001; 2001US-0271839P.

PR 27-FEB-2001; 2001US-0271855P.

PR 02-MAR-2001; 2001US-0272088P.

PR 02-MAR-2001; 2001US-0273046P.

PR 14-MAR-2001; 2001US-0275925P.

PR 14-MAR-2001; 2001US-0275947P.

PR 14-MAR-2001; 2001US-0275950P.

PR 15-MAR-2001; 2001US-0276448P.

PR 15-MAR-2001; 2001US-0276450P.

PR 16-MAR-2001; 2001US-0276397P.

PR 16-MAR-2001; 2001US-0276788P.

PR 20-MAR-2001; 2001US-0278652P.

PR 26-MAR-2001; 2001US-0278755P.

PR 26-MAR-2001; 2001US-0278778P.

PR 29-MAR-2001; 2001US-0279882P.

PR 29-MAR-2001; 2001US-0279884P.

PR 30-MAR-2001; 2001US-0280147P.

PR 11-APR-2001; 2001US-0282992P.

PR 11-APR-2001; 2001US-0283083P.

PR 20-APR-2001; 2001US-0285133P.

PR 23-APR-2001; 2001US-0285749P.

PR 03-MAY-2001; 2001US-0288327P.

PR 03-MAY-2001; 2001US-0288504P.

PR 29-MAY-2001; 2001US-0294047P.

PR 30-MAY-2001; 2001US-0294473P.

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PR 08-JUN-2001; 2001US-0296964P.
PR 18-JUN-2001; 2001US-0296959P.
PR 19-JUN-2001; 2001US-0299324P.
PR 13-AUG-2001; 2001US-0313020P.
PR 16-AUG-2001; 2001US-0312889P.
PR 21-AUG-2001; 2001US-0312908P.
PR 28-AUG-2001; 2001US-0315470P.
PR 31-AUG-2001; 2001US-0316447P.
PR 07-SEP-2001; 2001US-0318115P.
PR 07-SEP-2001; 2001US-0318118P.
PR 12-SEP-2001; 2001US-0318740P.
PR 19-SEP-2001; 2001US-0323379P.
PR 18-OCT-2001; 2001US-0330245P.
PR 18-OCT-2001; 2001US-0330308P.
PR 14-NOV-2001; 2001US-0332701P.
PA (CURA-) CURAGEN CORP.
XX
XX Tchernev VT, Spytek KA, Zernhusen BD, Paturajan M, Shinkets RA;
PI Li L, Gangolli EA, Padigaru M, Anderson DM, Raestelli L, Miller CE;
PI Gerlach VL, Taupier RJ, Gusev VY, Colman SD, Molenc AR, Pena CRA;
PI Furtak K, Grose WM, Alsdbrook JP, Lepley DM, Rieger DK, Burgess CE;
XX
XX WPI; 2002-706998/76.
XX
XX New NOVX polypeptides and nucleic acids, useful for preventing or
PT treating NOVX-associated disorders, e.g. cancer, cardiomyopathy,
PT atherosclerosis, or diabetes, and in chromosome mapping, tissue typing or
PT pharmacogenomics.
XX
XX Disclosure; SEQ ID NO 530; 1498bp; English.
XX
XX This invention relates to a novel nucleic acids, and encoded polypeptides
CC thereof, which have properties related to the stimulation of biochemical
CC or physiological responses in a cell, tissue, organ or organism.
CC Specifically, it refers to the use of biologically active fragments for
CC diagnostic and prognostic assays and furthermore in the treatment of
CC diverse pathological conditions. The present invention describes novel
CC human and murine NOVX proteins, as well as methods to modulate their
CC expression using antisense oligos, ribozymes and peptide nucleic acids.
CC The NOVX polypeptides, polynucleotides and antibodies are useful in
CC treating or preventing NOVX-associated disorders, e.g. cardiomyopathy,
CC atherosclerosis, cancer and diabetes. Furthermore, they may be used in
CC treating or preventing diseases such as inflammation, autoimmune
CC disorders, allergies, blood disorders, acquired immunodeficiency syndrome
CC (AIDS), obesity, asthma, immunoglobulin (Ig)A nephropathy, cirrhosis,
CC arthritis, Alzheimer's disease, infections, stroke, muscular dystrophy,
CC and epilepsy. Accordingly, these molecules have many activities including
CC cytostatic, cardiac, antiinflammatory, immunosuppressive, antiallergic,
CC haemostatic, anti-HIV, antidiabetic, antiarteriosclerotic, anorectic,
CC antiaesthetic, nephroprotective, antiarthritic, hepatotropic,
CC neuroprotective, nootropic, antibacterial, virucide, antiparasitic,
CC relaxant and anticonvulsant. In addition, they are useful in screening
CC assays to identify small molecules that modulate or inhibit, for example,
CC neurogenesis, wound healing and angiogenesis. The nucleic acids are also
CC used as in chromosome mapping, tissue typing, preventive medicine and
CC pharmacogenomics. This polypeptide is a homologue of a human NOVX protein
CC of the invention.
XX
XX Sequence 322 AA;
SQ
Query Match 97.4%; Score 1647; DB 5; Length 322;
Best Local Similarity 97.5%; Pred. No. 1.5e-170; Indels 0; Gaps 0;
Matches 314; Conservative 4; Mismatches 4;
QY 1 MPPTIVLGTKLTPINGREETPCYNQTLSTFTGLTCLISLVALTGNVAVLWLLGCRMRNA 60
DB 1 MDSTIVLGLHLPINGREETPCYKQTLSTFTGLTCLIVSLVALGNVAVLWLLGCRMRNA 60
QY 61 VSIYIINLVANFLPLSGHIIIFSPPLINIRHPIKSLSPVMTFPYPIGISMISAISTER 120
DB 61 VSIYIINLVADFLPLSGHIIICSPPLINIRHPIKSLSPVMTFPYPIGISMISAISTER 120
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QY 121 CISTIMPIWYHCRPRRYLSSVWCVLLMALSLRLSTLEWMPFCDFLPSGANVWCETSDPT 180
DB 121 CISTIMPIWYHCRPRRYLSSVWCVLLMALSLRLSTLEWMPFCDFLPSGANVWCETSDPT 180
QY 181 IAWVFLCVVCGSSVLVLRITLGSRRKMPRLRVTTILTVLVFLLCGLPGIGOMALFS 240
DB 181 IAWVFLCVVCGSSVLVLRITLGSRRKMPRLRVTTILTVLVFLLCGLPGIGOMALFS 240
QY 241 RIHLDMKVLFCVHVLVSIFLSALNNSANPIIYFPVGSFRQRQRQNLKVLQRALQDTE 300
DB 241 RIHLDMKVLFCVHVLVSIFLSALNNSANPIIYFPVGSFRQRQRQNLKVLQRALQDTE 300
QY 301 VDEGGGWLPEQETLEISGKLEQ 322
DB 301 VDEGGGWLPEQETLEISGKLEQ 322
RESULT 5
AD116999
ID AD116999 standard; protein; 322 AA.
XX
AC AD116999;
XX
XX 15-APR-2004 (first entry)
XX
XX Human NOVX protein homologue Seqid 535.
XX
XX human; NOVX; cardiomyopathy; atherosclerosis; cancer; diabetes;
XX inflammation; autoimmune disorder; allergy; blood disorder;
XX acquired immunodeficiency syndrome; AIDS; obesity; asthma;
XX immunoglobulin (Ig)A nephropathy; cirrhosis; arthritis;
XX Alzheimer's disease; infection; scr.
XX
XX Homo sapiens.
XX
XX WO200266649-A2.
XX
XX 06-SEP-2002.
XX
XX 31-JAN-2002; 2002W0-US002785.
XX
XX 31-JAN-2001; 2001US-0265395P.
XX 31-JAN-2001; 2001US-0265412P.
XX 31-JAN-2001; 2001US-0265514P.
XX 31-JAN-2001; 2001US-0265517P.
XX 02-FEB-2001; 2001US-0266406P.
XX 05-FEB-2001; 2001US-0266767P.
XX 07-FEB-2001; 2001US-0267057P.
XX 08-FEB-2001; 2001US-0267459P.
XX 09-FEB-2001; 2001US-0267823P.
XX 15-FEB-2001; 2001US-0268974P.
XX 26-FEB-2001; 2001US-0271664P.
XX 27-FEB-2001; 2001US-0271839P.
XX 27-FEB-2001; 2001US-0271855P.
XX 02-MAR-2001; 2001US-0272788P.
XX 02-MAR-2001; 2001US-0273046P.
XX 14-MAR-2001; 2001US-0275925P.
XX 14-MAR-2001; 2001US-0275947P.
XX 14-MAR-2001; 2001US-0275950P.
XX 14-MAR-2001; 2001US-0275989P.
XX 15-MAR-2001; 2001US-0276448P.
XX 15-MAR-2001; 2001US-0276450P.
XX 16-MAR-2001; 2001US-0276397P.
XX 16-MAR-2001; 2001US-0276768P.
XX 20-MAR-2001; 2001US-0278652P.
XX 26-MAR-2001; 2001US-0278775P.
XX 26-MAR-2001; 2001US-0278778P.
XX 29-MAR-2001; 2001US-0279882P.
XX 29-MAR-2001; 2001US-0279884P.
XX 30-MAR-2001; 2001US-0280147P.
XX 11-APR-2001; 2001US-0282992P.
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PR 11-APR-2001; 2001US-0283083P.  
PR 20-APR-2001; 2001US-0285133P.  
PR 23-APR-2001; 2001US-0285749P.  
PR 03-MAY-2001; 2001US-0288327P.  
PR 03-MAY-2001; 2001US-0288504P.  
PR 29-MAY-2001; 2001US-0294047P.  
PR 30-MAY-2001; 2001US-0294473P.  
PR 08-JUN-2001; 2001US-0296964P.  
PR 18-JUN-2001; 2001US-0298959P.  
PR 19-JUN-2001; 2001US-0299324P.  
PR 13-AUG-2001; 2001US-0312020P.  
PR 16-AUG-2001; 2001US-0312889P.  
PR 16-AUG-2001; 2001US-0312908P.  
PR 28-AUG-2001; 2001US-0313390P.  
PR 28-AUG-2001; 2001US-0315470P.  
PR 31-AUG-2001; 2001US-0316477P.  
PR 07-SEP-2001; 2001US-0318115P.  
PR 07-SEP-2001; 2001US-0318118P.  
PR 12-SEP-2001; 2001US-0318740P.  
PR 19-SEP-2001; 2001US-0323379P.  
PR 18-OCT-2001; 2001US-0330245P.  
PR 18-OCT-2001; 2001US-0330308P.  
PR 14-NOV-2001; 2001US-0332701P.

(CUTRA-) CUTRAGEN CORP.

XX Tchernev VT, Spytek KA, Zetserhusen BD, Patnuraajan M, Shinkets RA;  
PI Li L, Gangoli EA, Padigar M, Anderson DM, Rastelli L, Miller CE;  
PI Gerlach VL, Taupier RJ, Gusev VY, Colman SD, Wolenc AR, Pena CB;  
PI Furtak K, Grose WM, Alsbrook JP, Lepley DM, Rieger DK, Burgess CE;  
XX WPI; 2002-706998/76.

XX New NOXV polypeptides and nucleic acids, useful for preventing or  
PT treating NOXV-associated disorders, e.g. cancer, cardiomyopathy,  
PT atherosclerosis, or diabetes, and in chromosome mapping, tissue typing or  
PT pharmacogenomics.

PS Disclosure; SEQ ID NO 535; 1498bp; English.

XX This invention relates to a novel nucleic acids, and encoded polypeptides  
XX thereof, which have properties related to the stimulation of biochemical  
XX or physiological responses in a cell, tissue, organ or organism.  
XX Specifically, it refers to the use of biologically active fragments for  
XX diagnostic and prognostic assays and furthermore in the treatment of  
XX diverse pathological conditions. The present invention describes novel  
XX human and murine NOXV proteins, as well as methods to modulate their  
XX expression using antisense oligos, ribozymes and peptide nucleic acids.  
XX The NOXV polypeptides, polynucleotides and antibodies are useful in  
XX treating or preventing NOXV-associated disorders, e.g. cardiomyopathy,  
XX atherosclerosis, cancer and diabetes. Furthermore, they may be used in  
XX treating or preventing diseases such as inflammation, autoimmune  
XX disorders, allergies, blood disorders, acquired immunodeficiency syndrome  
XX (AIDS), obesity, asthma, immunoglobulin (Ig)A nephropathy, cistrosis,  
XX arthritis, Alzheimer's disease, infections, stroke, muscular dystrophy  
XX and epilepsy. Accordingly, these molecules have many activities including  
XX cytostatic, cardiant, antiinflammatory, immunosuppressive, antiallergic,  
XX haemostatic, anti-HIV, antidiabetic, antiarthritic, anorectic,  
XX antiaesthetic, nephrotoxic, antirheumatic, hepatotropic,  
XX neuroprotective, nootropic, antibacterial, virucide, antiparasitic,  
XX relaxant and anticonvulsant. In addition, they are useful in screening  
XX assays to identify small molecules that modulate or inhibit, for example,  
XX neurogenesis, wound healing and angiogenesis. The nucleic acids are also  
XX used as in chromosome mapping, tissue typing, preventive medicine and  
XX pharmacogenomics. This polypeptide is a homologue of a human NOXV protein  
XX of the invention.

XX Sequence 322 AA;

Query Match 97.4%; Score 1647; DB 5; Length 322;  
Best Local Similarity 97.5%; Pred. No. 1.5e-170;  
Matches 314; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

QY 1 MDPTIPVLGKLTPIINGREBTPCYNOTLSTFTGLTCIIISVALTGNAVVTMLCCRRRNA 60  
Db 1 MDSTIPVLGTELTPIINGREBTPCYKQTLSEFTGLTCIVSVALTGNAVVTMLCCRRRNA 60  
QY 61 VSIYIINLVAAADLFPSGHITCSPLRLINRHPISKILSPVMPFPFIGSMIASTER 120  
Db 61 VSIYIINLVAAADLFPSGHITCSPLRLINRHPISKILSPVMPFPFIGSMIASTER 120  
QY 121 CLSIILPIMWCHRCRPYLSVSMCVLLMALSLRSILEMFCDFLFGSANSVWCETSDFIT 180  
Db 121 CLSIILPIMWCHRCRPYLSVSMCVLLMALSLRSILEMFCDFLFGSANSVWCETSDFIT 180  
QY 181 IAMLVFLCVLLCGSSVLVLRILCGSRKMPRLTYTTLITLVLFGLGIPFGIQWALFS 240  
Db 181 IAMLVFLCVLLCGSSVLVLRILCGSRKMPRLTYTTLITLVLFGLGIPFGIQWALFS 240  
QY 241 RIHLDMKVLPCGHVHVSIFLSANSSANPIYFVGSFROKOROVKVLQSLADOTPE 300  
Db 241 RIHLDMKVLPCGHVHVSIFLSANSSANPIYFVGSFROKOROVKVLQSLADOTPE 300  
QY 301 VDEGGGMLPQETLELSGSKLEQ 322  
Db 301 VDEGGGMLPQETLELSGSRLEQ 322

RESULT 6

ADCB6821

ID ADCB6821 standard; protein; 322 AA.

XX AC ADCB6821;

XX DT 01-JAN-2004 (first entry)

XX DE Human GPCR protein SEQ ID NO:1274.

XX KW human; GPCR; guanosine triphosphate-binding protein coupled receptor;  
XX gene therapy.

XX OS Homo sapiens.

XX PN EP1270724-A2.

XX PD 02-JAN-2003.

XX PF 18-JUN-2002; 2002EP-00013517.

XX PR 18-JUN-2001; 2001JP-00246789.

XX PA (NAAD-) NAT INST ADVANCED IND SCI & TECHNOLOGY.  
XX (ADSC-) CENT ADVANCED SCI & TECHNOLOGY INCUBATIO.

XX PI Suwa M, Asai K, Akiyama Y, Aburatani H;

XX WPI; 2003-315783/31.

XX DR N-PSDB; ADCB6820.

XX PT New polynucleotide, useful for preparing a composition for treating a  
XX patient in need of increased or suppressed activity or expression of the  
XX guanosine triphosphate-binding protein coupled receptor.

XX PS Claim 2; SEQ ID NO 1274; 28bp; English.

XX The invention relates to a novel polynucleotide encoding a guanosine  
XX triphosphate-binding protein coupled receptor (GPCR). A polynucleotide of  
XX the invention may have a use in gene therapy. The polynucleotide and  
XX polypeptide are useful for preparing a composition for treating a patient  
XX in need of increased or suppressed activity or expression of the  
XX guanosine triphosphate-binding protein coupled receptor. The protein  
XX sequences shown in ADCB6821-ADCB6821 represent GPCR's of the invention.

XX Sequence 322 AA;

Query Match 97.4%; Score 1647; DB 7; Length 322;

B	Beat Local Similarity	97.5%	Pred. No.1.5e-170:							
M	Matches	314;	Conservative	4;	Mismatches	4;	Indels	0;	Gaps	0;
OY		1	MDPTIPVLGKLTPIINGREETPCYNQUTLSFTGLTCTISLVALTGNAAVVMILGCRMRNA	60						
DB		1	MDSTIPVLGTETLPINGREETPCYKQTLSFTGLTCTIVSLVALTGNAVLMILGCRMRRNA	60						
OY		61	VSIYIILNVAANFLFSGHIIIFSP.LPLINIRHPISKIISPPWTFPFYIGLSMLSIATER	120						
DB		61	VSIYIILNVAADFLFSGHIIICSP.LRLINIRHPISKIISPVMTFPFYIGLSMLSIATER	120						
OY		121	CLSIIMPFIWHCCRPRRYLSSVMCVLLMALSLRSLLENMFCDPLFSGANSVCERSDEIT	180						
DB		121	CLSIIMPFIWHCKRRRYLSSVMCVLLMALSLRSLLENMFCDPLFSGANSWCERSDIT	180						
OY		181	IAMVFLCVALCGSSLVLLVRILLCSSRKMPLTRLYVTILLTVLVFLCGLPFGIOMALFS	240						
DB		181	IAMVFLCVALCGSSLVLLVRILLCSSRKMPLTRLYVTILLTVLVFLCGLPFGIOMALFS	240						
OY		241	RHLDMVKTLFCVHALVSIFLSALNSSANPITYFPVGSFRQRNRONLKYUORALOPTYE	300						
DB		241	RHLDMVKTLFCVHALVSIFLSALNSSANPITYFPVGSFRQRNRONLKYUORALOPTYE	300						
OY		301	VDEGGGWLPQENTLELSGSKLEQ	322						
DB		301	VDEGGGWLPQENTLELSGSKRLEQ	322						
RESULT		7								
ID	ADO44604									
XX	ADO44604 standard; protein; 322 AA.									
AC	ADO44604;									
XX										
DT	29-JUL-2004 (first entry)									
XX										
DE	Human HIT7213 protein.									
XX										
KM	HIT7213; transgenic; G protein-coupled receptor; GPCR; ophthalmological;									
KW	cytotoxic; nephrotoxic; antiinflammatory; dermatological; analgesic;									
XX	vulnerary; neuroprotective; human; receptor.									
OS	Homo sapiens.									
PN	WO2004039972-A1.									
XX										
PD	13-MAY-2004.									
XX										
PF	28-OCT-2003; 2003WO-JP013781.									
XX										
PR	29-OCT-2002; 2002JP-00314141.									
XX										
PA	(TAKE ) TAKEDA CHEM IND LTD.									
XX										
PI	Kaisho Y, Watanabe T, Yasuhara Y, Mori I, Taketomi S;									
XX										
DR	WPI; 2004-376191/35.									
XX	N-Psdb; ADO44605.									
PT	HIT7213 protein, encoded DNA and transgenic animals for clarifying									
XX	pathological mechanism, developing therapeutic methods and screening									
CC	preventives or remedies for related diseases e.g. cataract, cancer, and									
CC	dermatitis.									
PS	Claim 3; SEQ ID NO 3; 161bp; Japanese.									
XX										
CC	The invention relates to a non-human mammal that carries a DNA integrated									
CC	with a foreign HIT7213 or its mutant gene, or a part of it. The non-human									
CC	animal is particularly a rat. Such gene shows phenotypes of e.g. cataract									
CC	onset, transient skin rash and proliferation-promoting activity. The									
CC	foreign HIT7213 gene is a gene that encodes a G protein-coupled receptor									
CC	(GPCR) protein HIT7213. The protein, its encoded DNA and constructed									
CC	transgenic animals are useful for clarifying pathological mechanism,									

	Query Match	97.4%	Score 1647	DB 8	Length 322
CC	developing therapeutic methods and screening preventives or remedies for				
CC	related diseases e.g. cataract, cancer, and dermatitis. The present				
CC	sequence represents a human h177213 protein.				
XX					
XX	Sequence 322 AA;				
CC	Query Match	97.4%	Score 1647	DB 8	Length 322
CC	Beet Local Similarity	97.5%	Pred. No. 1,5e-170		
CC	Matches 314; Conservative	4	Mismatches 4	Indels 0	Gaps 0
QY	1	MDPTIPVAGTRKLPINGREETPCYNQTLSTGLTCTIISLVALTGNAAVYLMILGCMRRNA	60		
DB	1	MDSTIPVAGTELTPTINGREETPCYQTLSTFGLTCTISVLTGNAAVYLMILGCMRRNA	60		
QY	61	VSIYTLNVAANFLFSGHIIIFSPLEPLINIRHPISKIISPVWTFPFYFGLSMLSAISTER	120		
DB	61	VSIYTLNVAADFLFSGHIIICSPRLINIRHPISKIISPVWTFPFYFGLSMLSAISTER	120		
QY	121	CLSTIMPIWYHCRPRRYLSSVWCYLLMALSLRSTLEWPFCDPLFSGANSVMCETSDFIT	180		
DB	121	CLSTIMPIWYHCRPRRYLSSVWCYLLMALSLRSTLEWPFCDPLFSGANSVMCETSDFIT	180		
QY	181	IAMVFLCVLFGSSSLVLLVRLILGSSRRMPRLRYVTLLTVLVEFLGCLPFGIQALFS	240		
DB	181	IAMVFLCVLFGSSSLVLLVRLILGSSRRMPRLRYVTLLTVLVEFLGCLPFGIQALFS	240		
QY	241	RIHLDKVLFCVHLVSIIFLSALNSSANPIIYFVFGSFRORONRONLKLVLORALQDPE	300		
DB	241	RIHLDKVLFCVHLVSIIFLSALNSSANPIIYFVFGSFRORONRONLKLVLORALQDPE	300		
QY	301	VDEGGWLPQETLELSSKLEQ 322			
DB	301	VDEGGWLPQETLELSSKLEQ 322			
RESULT 8					
ID	AA90761				
ID	AA90761	standard; protein; 322 AA.			
AC	AA90761;				
DT	18-AUG-2000	(first entry)			
DE	Human G protein-coupled receptor h177213 SEQ ID NO:1.				
KM	Human; G protein-coupled receptor; hippocampus; diagnosis; screening;				
KM	genetic disease; cellular function regulation.				
OS	Homo sapiens.				
PN	WO200020455-A1.				
PD	13-APR-2000.				
PF	30-SEP-1999;	99WO-JP005356.			
PR	01-OCT-1998;	98JP-00279535.			
PA	(TAKE ) TAKEDA CHEM IND LTD.				
FI	Watanabe T, Terao Y, Matsui H;				
DR	WPI; 2000-303747/26.				
DR	N-PEDB; AAA29811.				
PT	Human-derived G protein-coupled protein and encoding nucleic acid, useful				
PT	e.g. in determining ligands and treatment of diseases associated with				
PS	dysfunction of the protein.				
PS	Claim 1; Page 90-91; 97pp; Japanese.				
CC	The present sequence represents a human-derived G protein-coupled protein				
CC	designated h177213, which is isolated from the human hippocampus. The G				

CC protein-coupled receptor can be used for preventing, treating and  
CC diagnosing genetic diseases associated with G protein-coupled protein,  
CC and for regulating cellular functions. The protein can be used to prevent  
CC and treat disorders associated with G protein-coupled protein gene  
CC dysfunction. It can also be used to identify G protein-coupled protein  
CC ligands and generating antibodies and antisera against the protein. It is  
CC also useful in constructing recombinant receptor protein expression  
CC systems, developing receptor-binding assay systems and screening drug  
CC candidates, and can be used as a probe in the genetic diagnosis of G  
CC protein-coupled protein disorders

XX Sequence 322 AA:

Query Match 97.1%; Score 1642; DB 3; Length 322;  
Best Local Similarity 97.2%; Pred. No. 5.2e-170;  
Matches 313; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

QY 1 MDPTIVLGTLPINGRETPCYNOTLSFTGLTCTISVALTGNVAVMLGCRMRNA 60  
DB 1 MSTTIVLGTLPINGRETPCYKOTLSFTGLTCTISVALTGNVAVMLGCRMRNA 60  
QY 61 VSIYIINLVANFLPSGHIIIFSPPLINIRHPISKILSPVMTPEYFIGLSMLSAISTER 120  
DB 61 VSIYIINLVANFLPSGHIIIFSPPLINIRHPISKILSPVMTPEYFIGLSMLSAISTER 120  
QY 121 CUSTIMPWYHCRPRPYLSSVMCVLMAISLRSILEMFCDFLFGSANSWCETSDFT 180  
DB 121 CUSTIMPWYHCRPRPYLSSVMCVLMAISLRSILEMFCDFLFGSANSWCETSDFT 180  
QY 181 IAMLVFLCVVLCSSSLVLRILCGSRKMPLTRLYTITLVAVFLCGLPFGIQWALFS 240  
DB 181 IAMLVFLCVVLCSSSLVLRILCGSRKMPLTRLYTITLVAVFLCGLPFGIQWALFS 240  
QY 241 RIHLDMKVLFCVHVLVSIIFLSALNSSANPIIYFVGSFRORONRKULVLRALDTP 300  
DB 241 RIHLDMKVLFCVHVLVSIIFLSALNSSANPIIYFVGSFRORONRKULVLRALDTP 300  
QY 301 VDEGGMLPQETLELSGSKLEQ 322  
DB 301 VDEGGMLPQETLELSGSKLEQ 322

## RESULT 9

AB04077 standard; protein; 322 AA.

XX AB04077;

XX 11-OCT-2002 (first entry)

XX Human G protein coupled receptor hRUP37.

XX Human; G-protein coupled receptor; GPCR; hRUP28; hRUP29; hRUP30; hRUP31;  
XX hRUP32; hRUP33; hRUP34; hRUP35; hRUP36; hRUP37.

XX Homo sapiens.

XX WO200242461-A2.

XX 30-MAY-2002.

XX 26-NOV-2001; 2001WO-US044386.

XX 27-NOV-2000; 2000US-0253404P.

XX 12-DEC-2000; 2000US-0255366P.

XX 20-FEB-2001; 2001US-0270266P.

XX 06-FEB-2001; 2001US-0270286P.

XX 06-APR-2001; 2001US-0282356P.

XX 06-APR-2001; 2001US-0282358P.

XX 14-MAY-2001; 2001US-0290917P.

XX 31-JUL-2001; 2001US-0309208P.

XX (AREN-) ARENA PHARM INC.  
XX Chen R, Chu ZL, Dang HT, Lowitz KP, Pride C;  
XX WPI; 2002-566565/60.  
XX N-PSDB; AB04875.

XX Novel endogenous and non-endogenous versions of G protein-coupled  
XX receptor useful for identification of candidate compounds as receptor  
XX agonists or antagonists for use as therapeutic agents.

PS Claim 37; Page 75-76; 84pp; English.

XX The present invention provides the protein and coding sequences of  
XX several human G-protein coupled receptors (GPCRs). These can be used in  
XX the identification of candidate compounds as receptor agonists or inverse  
XX agonists having applicability as therapeutic agents. The present sequence  
XX is a GPCR protein of the invention

SQ Sequence 322 AA:

Query Match 97.1%; Score 1642; DB 5; Length 322;  
Best Local Similarity 97.2%; Pred. No. 5.2e-170;  
Matches 313; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

QY 1 MDPTIVLGTLPINGRETPCYNOTLSFTGLTCTISVALTGNVAVMLGCRMRNA 60  
DB 1 MDPTIVLGTLPINGRETPCYKOTLSFTGLTCTISVALTGNVAVMLGCRMRNA 60  
QY 61 VSIYIINLVANFLPSGHIIIFSPPLINIRHPISKILSPVMTPEYFIGLSMLSAISTER 120  
DB 61 VSIYIINLVANFLPSGHIIIFSPPLINIRHPISKILSPVMTPEYFIGLSMLSAISTER 120  
QY 121 CUSTIMPWYHCRPRPYLSSVMCVLMAISLRSILEMFCDFLFGSANSWCETSDFT 180  
DB 121 CUSTIMPWYHCRPRPYLSSVMCVLMAISLRSILEMFCDFLFGSANSWCETSDFT 180  
QY 181 IAMLVFLCVVLCSSSLVLRILCGSRKMPLTRLYTITLVAVFLCGLPFGIQWALFS 240  
DB 181 IAMLVFLCVVLCSSSLVLRILCGSRKMPLTRLYTITLVAVFLCGLPFGIQWALFS 240  
QY 241 RIHLDMKVLFCVHVLVSIIFLSALNSSANPIIYFVGSFRORONRKULVLRALDTP 300  
DB 241 RIHLDMKVLFCVHVLVSIIFLSALNSSANPIIYFVGSFRORONRKULVLRALDTP 300  
QY 301 VDEGGMLPQETLELSGSKLEQ 322  
DB 301 VDEGGMLPQETLELSGSKLEQ 322

## RESULT 10

AAE21296 standard; protein; 322 AA.

XX AAE21296;

XX 01-JUL-2002 (first entry)

XX Human MrgX3 (mas-related gene) protein.

XX Human; mas-related gene; G-protein coupled receptor; drg-12 protein;  
XX receptor; sensory perception; pain; analgesic; MrgX3.

XX Homo sapiens.

XX WO200183555-A2.

XX 08-NOV-2001.

XX 04-MAY-2001; 2001WO-US014519.

XX 04-MAY-2000; 2000US-0202027P.

PR 01-AUG-2000; 2000US-022344P.  
PR 03-NOV-2000; 2000US-00704707.  
PR 19-APR-2001; 2001US-0285493P.  
XX  
XX (CALY ) CALIFORNIA INST OF TECHNOLOGY.  
XX  
XX Anderson DJ, Dong X, Zylka M, Han S, Simon M;  
XX  
XX WPI; 2002-171346/22.  
XX  
XX N-PSDB; AAD33751.  
XX  
XX  
XX Isolated polypeptide, Mrg, which is a G-protein coupled receptor and an  
XX  
XX isolated polypeptide, drc-12, which is also a receptor. useful for  
XX  
XX identifying agonists or antagonists for treating pain.  
XX  
XX  
XX Claim 16; Page 130; 185pp; English.  
XX  
XX  
XX The invention relates to Mrg (nas-related gene) protein, which is a G-  
XX  
XX protein coupled receptor and drc-12 protein, which is a receptor. The  
XX  
XX invention is useful for identifying compounds that bind to it, especially  
XX  
XX agonists or antagonists. Administration of an agent (e.g. the identified  
XX  
XX agonist) that increases the expression of Mrg in a mammal may be used for  
XX  
XX treating impaired sensory perception in a mammal, especially pain. The  
XX  
XX antagonist may also be useful for treating impaired sensory perception in  
XX  
XX a mammal. The present sequence is human Mrgx3 protein  
XX  
XX  
XX Sequence 322 AA;

Query Match 97.1%; Score 1642; DB 5; Length 322;  
Best Local Similarity 97.2%; Pred. No. 5,2e-170;  
Matches 313; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

QY 1 MPTTIVLGTGKTLPIGRRETPCYNOTLSFTGLTCTISVALTGNVMTLGCRRRNA 60  
DB 1 MSTTIPVLGTETLPINGREBETPCYKOTLSTGLTCTISVALTGNVMTLGCRRRNA 60  
QY 61 VSIYIINLVANFLFLSGHIIIPSPPLINIRHPSKILSPVMTFPYFIGLSMLAISTER 120  
DB 61 VSIYIINLVANFLFLSGHIIIPSPPLINIRHPSKILSPVMTFPYFIGLSMLAISTER 120  
QY 121 CISTIMPTIYHCRPRFYLSSVWCVLMAISLSTIEMWFCDFLFGANSVWCETSDFTT 180  
DB 121 CISTIMPTIYHCRPRFYLSSVWCVLMAISLSTIEMWFCDFLFGANSVWCETSDFTT 180  
QY 181 IMLVFLCVLTCGSSLVLTVRITCGSRKMPLTRLYTILTVVFLTCGPFGIQWALS 240  
DB 181 IMLVFLCVLTCGSSLVLTVRITCGSRKMPLTRLYTILTVVFLTCGPFGIQWALS 240  
QY 241 RIHLDMKVLFCVHVLVSIFLSALNSSANPIYFVGSFRQRONKVLQRLADTPE 300  
DB 241 RIHLDMKVLFCVHVLVSIFLSALNSSANPIYFVGSFRQRONKVLQRLADTPE 300  
QY 301 VDEGGGMLPQETLELSGSKLEQ 322  
DB 301 VDEGGGMLPQETLELSGSKLEQ 322

## RESULT 11

AD116993  
ID AD116993 standard; protein; 322 AA.

AC AD116993;

XX 15-APR-2004 (first entry)

XX Human NOVX protein homologue Segid 529.

XX human; NOVX; cardiomyopathy; atherosclerosis; cancer; diabetes;  
XX inflammation; autoimmune disorder; allergy; blood disorder;  
XX acquired immunodeficiency syndrome; AIDS; obesity; asthma;  
XX immunoglobulin (Ig)A nephropathy; cirrhosis; arthritis;  
XX Alzheimer's disease; infection; str.

OS Homo sapiens.

XX WO200268649-A2.

XX 06-SEP-2002.

XX 31-JAN-2002; 2002WO-US002785.

XX 31-JAN-2001; 2001US-0265395P.

XX 31-JAN-2001; 2001US-0265412P.

XX 31-JAN-2001; 2001US-0265514P.

XX 02-FEB-2001; 2001US-0266406P.

XX 05-FEB-2001; 2001US-0266767P.

XX 07-FEB-2001; 2001US-0266975P.

XX 08-FEB-2001; 2001US-0267459P.

XX 09-FEB-2001; 2001US-0267823P.

XX 15-FEB-2001; 2001US-0268974P.

XX 26-FEB-2001; 2001US-0271664P.

XX 27-FEB-2001; 2001US-0271839P.

XX 02-MAR-2001; 2001US-0271855P.

XX 02-MAR-2001; 2001US-0272788P.

XX 14-MAR-2001; 2001US-0273046P.

XX 14-MAR-2001; 2001US-0275925P.

XX 14-MAR-2001; 2001US-0275947P.

XX 14-MAR-2001; 2001US-0275950P.

XX 15-MAR-2001; 2001US-0276448P.

XX 16-MAR-2001; 2001US-0276450P.

XX 16-MAR-2001; 2001US-0276397P.

XX 20-MAR-2001; 2001US-0276768P.

XX 26-MAR-2001; 2001US-0278652P.

XX 26-MAR-2001; 2001US-0278752P.

XX 29-MAR-2001; 2001US-0279882P.

XX 29-MAR-2001; 2001US-0279884P.

XX 30-MAR-2001; 2001US-0280147P.

XX 11-APR-2001; 2001US-0282922P.

XX 11-APR-2001; 2001US-0283083P.

XX 20-APR-2001; 2001US-0285133P.

XX 23-APR-2001; 2001US-0285749P.

XX 03-MAY-2001; 2001US-0288272P.

XX 03-MAY-2001; 2001US-0288504P.

XX 29-MAY-2001; 2001US-0294047P.

XX 30-MAY-2001; 2001US-0294473P.

XX 08-JUN-2001; 2001US-0296864P.

XX 18-JUN-2001; 2001US-0296859P.

XX 19-JUN-2001; 2001US-0299324P.

XX 13-AUG-2001; 2001US-0312020P.

XX 16-AUG-2001; 2001US-0312889P.

XX 16-AUG-2001; 2001US-0312908P.

XX 21-AUG-2001; 2001US-0313909P.

XX 28-AUG-2001; 2001US-0315470P.

XX 31-AUG-2001; 2001US-0316447P.

XX 07-SEP-2001; 2001US-0318115P.

XX 07-SEP-2001; 2001US-0318118P.

XX 12-SEP-2001; 2001US-0318740P.

XX 19-SEP-2001; 2001US-0323179P.

XX 18-OCT-2001; 2001US-0330245P.

XX 18-OCT-2001; 2001US-0330308P.

XX 14-NOV-2001; 2001US-0332701P.

(CURA-) CURAGEN CORP.

XX Tchernev VT, Spyrek KA, Zernusen BD, Patturajan M, Shinkets RA;  
XX Li L, Gangelili EA, Padgugan M, Anderson DW, Raetelli L, Miller CE;  
XX Gerlach VL, Taupier RJ, Gusev VV, Colman SD, Wolenc AR, Pena CEa; CS;  
XX Furtak K, Grose WM, Alsbrook JP, Lepley DM, Rieger DK, Burgess CS;  
XX WPI; 2002-706998/76.

XX New NOVX polypeptides and nucleic acids, useful for preventing or

PT treating NOXV-associated disorders, e.g. cancer, cardiomyopathy,  
PT atherosclerosis, or diabetes, and in chromosome mapping, tissue typing or  
PT pharmacogenomics.

XX Disclousure; SEQ ID NO 529; 1498pp; English.

CC This invention relates to a novel nucleic acids, and encoded polypeptides  
CC thereof, which have properties related to the stimulation of biochemical  
CC or physiological responses in a cell, tissue, organ or organism.  
CC Specifically, it refers to the use of biologically active fragments for  
CC diagnostic and prognostic assays and furthermore in the treatment of  
CC diverse pathological conditions. The present invention describes novel  
CC human and murine NOXV proteins, as well as methods to modulate their  
CC expression using antisense oligos, ribozymes and peptide nucleic acids.  
CC The NOXV polypeptides, polynucleotides and antibodies are useful in  
CC treating or preventing NOXV-associated disorders, e.g. cardiomyopathy,  
CC atherosclerosis, cancer and diabetes. Furthermore, they may be used in  
CC treating or preventing diseases such as inflammation, autoimmune  
CC disorders, allergies, blood disorders, acquired immunodeficiency syndrome  
CC (AIDS), obesity, asthma, immunoglobulin (Ig)A nephropathy, cirrhosis,  
CC arthritis, Alzheimer's disease, infections, stroke, muscular dystrophy  
CC and epilepsy. Accordingly, these molecules have many activities including  
CC cytostatic, cardiac, anti-inflammatory, immunosuppressive, antiallergic,  
CC haemostatic, anti-HIV, antidiabetic, antiarteriosclerotic, anorectic,  
CC antisthmatic, nephroprotective, antiarthritic, hepatotropic,  
CC neuroprotective, neurotropic, antibacterial, virocidic, antiparasitic,  
CC relaxant and anticonvulsant. In addition, they are useful in screening  
CC assays to identify small molecules that modulate or inhibit, for example,  
CC neurogenesis, wound healing and angiogenesis. The nucleic acids are also  
CC used as in chromosome mapping, tissue typing, preventive medicine and  
CC pharmacogenomics. This polypeptide is a homologue of a human NOXV protein  
CC of the invention.

XX SQ Sequence 322 AA;

Query Match 97.1%; Score 1642; DB 5; Length 322;

Best Local Similarity 97.2%; Pred. No. 5.2e-170;

Matches 313; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

QY 1 MDPTIVLGLTKLPINGREETPCYNQTLSTFTGLTIIISVALNGNVMVLGLGCRMRNA 60  
DB 1 MSTITVLTGLTLPINGREETPCYNQTLSTFTGLTIIISVALNGNVMVLGLGCRMRNA 60  
QY 61 VSIYIINLVANFLPLSGHIIIFSPPLINIRHPIISKILSPVMTFPYFIGLSMLAISTER 120  
DB 61 VSIYIINLVANFLPLSGHIIIFSPPLINIRHPIISKILSPVMTFPYFIGLSMLAISTER 120  
QY 121 CISTIMPITWYHGRPRYLSVWCVLLMAISLSIIEWFCDFLFGSANSWCEISDFTT 180  
DB 121 CISTIMPITWYHGRPRYLSVWCVLLMAISLSIIEWFCDFLFGSANSWCEISDFTT 180  
QY 181 IAMLVFLCVLGGSSVLVLRILGSRKMPLTLYTITLTVLVPLLCGPRGIQALTS 240  
DB 181 IAMLVFLCVLGGSSVLVLRILGSRKMPLTLYTITLTVLVPLLCGPRGIQALTS 240  
QY 241 RIHLDMKVLFCVHVLVSIFLSALNSSANPIYFVFSFRQNRQMKLVGRALODTPE 300  
DB 241 RIHLDMKVLFCVHVLVSIFLSALNSSANPIYFVFSFRQNRQMKLVGRALODTPE 300  
QY 301 VDEGGGMLPQETLTLSGSKLEQ 322  
DB 301 VDEGGGMLPQETLTLSGSKLEQ 322

RESULT 12

AD116998  
ID AD116998 standard; protein; 322 AA.

AC AD116998;

XX 15-APR-2004 (first entry)

DT Human NOXV protein homologue Segid 534.

XX human; NOXV; cardiomyopathy; atherosclerosis; cancer; diabetes;  
KW inflammation; autoimmune disorder; allergy; blood disorder;  
KW acquired immunodeficiency syndrome; AIDS; obesity; asthma;  
KW immunoglobulin (Ig)A nephropathy; cirrhosis; arthritis;  
KW Alzheimer's disease; infection; str.

XX Homo sapiens.

PN WO200268649-A2.

XX 06-SEP-2002.

PD 31-JAN-2002; 2002WO-US002785.

XX 31-JAN-2001; 2001US-0265395P.  
PR 31-JAN-2001; 2001US-0265412P.  
PR 31-JAN-2001; 2001US-0265514P.  
PR 31-JAN-2001; 2001US-0265517P.  
PR 02-FEB-2001; 2001US-0266406P.  
PR 05-FEB-2001; 2001US-0266767P.  
PR 07-FEB-2001; 2001US-0266975P.  
PR 07-FEB-2001; 2001US-0267057P.  
PR 08-FEB-2001; 2001US-0267459P.  
PR 09-FEB-2001; 2001US-0267823P.  
PR 15-FEB-2001; 2001US-0268974P.  
PR 26-FEB-2001; 2001US-0271664P.  
PR 27-FEB-2001; 2001US-0271839P.  
PR 27-FEB-2001; 2001US-0271855P.  
PR 02-MAR-2001; 2001US-0272789P.  
PR 02-MAR-2001; 2001US-0273046P.  
PR 14-MAR-2001; 2001US-0275925P.  
PR 14-MAR-2001; 2001US-0275947P.  
PR 14-MAR-2001; 2001US-0275989P.  
PR 15-MAR-2001; 2001US-0276448P.  
PR 15-MAR-2001; 2001US-0276450P.  
PR 16-MAR-2001; 2001US-0276397P.  
PR 16-MAR-2001; 2001US-0276768P.  
PR 20-MAR-2001; 2001US-0276652P.  
PR 26-MAR-2001; 2001US-0276775P.  
PR 26-MAR-2001; 2001US-0278778P.  
PR 29-MAR-2001; 2001US-0279882P.  
PR 29-MAR-2001; 2001US-0279884P.  
PR 30-MAR-2001; 2001US-0280147P.  
PR 11-APR-2001; 2001US-0280292P.  
PR 11-APR-2001; 2001US-0283083P.  
PR 20-APR-2001; 2001US-0285133P.  
PR 23-APR-2001; 2001US-0285749P.  
PR 03-MAY-2001; 2001US-0286327P.  
PR 03-MAY-2001; 2001US-0286504P.  
PR 29-MAY-2001; 2001US-0294047P.  
PR 30-MAY-2001; 2001US-0294473P.  
PR 08-JUN-2001; 2001US-0296649P.  
PR 18-JUN-2001; 2001US-0298959P.  
PR 19-JUN-2001; 2001US-0299324P.  
PR 13-AUG-2001; 2001US-0312020P.  
PR 16-AUG-2001; 2001US-0312869P.  
PR 16-AUG-2001; 2001US-0312908P.  
PR 21-AUG-2001; 2001US-0313390P.  
PR 28-AUG-2001; 2001US-0315470P.  
PR 31-AUG-2001; 2001US-0316447P.  
PR 07-SEP-2001; 2001US-0318115P.  
PR 07-SEP-2001; 2001US-0318118P.  
PR 12-SEP-2001; 2001US-0318749P.  
PR 19-SEP-2001; 2001US-0323379P.  
PR 18-OCT-2001; 2001US-0330245P.  
PR 18-OCT-2001; 2001US-0330308P.  
PR 14-NOV-2001; 2001US-0332701P.

PA (CURA-) CUPAGEN CORP.

XX Tchernev VT, Spytek KA, Zerhusen BD, Paturajan M, Shimkets RA;

PI Li L, Gangollit EA, Padigan M, Anderson DM, Raselli L, Miller CE;  
PI Gerlach VL, Taupier RJ, Gusev VY, Colman SD, Wolenc AR, Pena CE;  
PI Furlak K, Grosse WM, Alsdorff JP, Lepley DM, Rieger DK, Burgess CE,  
XX  
DR WPI; 2002-706998/76.  
XX  
PT New NOXV polypeptides and nucleic acids, useful for preventing or  
PT treating NOXV-associated disorders, e.g. cancer, cardiomyopathy,  
PT atherosclerosis, or diabetes, and in chromosome mapping, tissue typing or  
PT pharmacogenomics.

Disclosure; SEQ ID NO 534; 1498bp; English.

This invention relates to a novel nucleic acids, and encoded polypeptides thereof, which have properties related to the stimulation of biochemical or physiological responses in a cell, tissue, organ or organism. Specifically, it refers to the use of biologically active fragments for diagnostic and prognostic assays and furthermore in the treatment of diverse pathological conditions. The present invention describes novel human and murine NOVX proteins, as well as methods to modulate their expression using antisense oligos, ribozymes and peptide nucleic acids. The NOVX polypeptides, polynucleotides and antibodies are useful in treating or preventing NOVX-associated disorders, e.g. cardiomyopathy, atherosclerosis, cancer and diabetes. Furthermore, they may be used in treating or preventing diseases such as inflammation, autoimmune disorders, allergies, blood disorders, acquired immunodeficiency syndrome (AIDS), obesity, asthma, immunoglobulin (Ig) nephropathy, cirrhosis, arthritis, Alzheimer's disease, infections, stroke, muscular dystrophy and epilepsy. Accordingly, these molecules have many activities including cytostatic, cardant, antiinflammatory, immunosuppressive, antiallergic, haemostatic, anti-HIV, antidiabetic, antiatherosclerotic, anorectic, antiasmatic, nephrotoxic, antiaesthetic, hepatotropic, neuroprotective, nocotropic, antibacterial, vrinocic, antiparasitic, relaxant and anticonvulsant. In addition, they are useful in screening assays to identify small molecules that modulate or inhibit, for example, neurogenesis, wound healing and angiogenesis. The nucleic acids are also used as in chromosome mapping, tissue typing, preventive medicine and pharmacogenomics. This polypeptide is a homologue of a human NOVX protein of the invention.

**SQ Sequence 322 AA;**

Query Match	97.1 %	Score 1642	DB 5	Length 322
Best Local Similarity	97.2 %	Pred. No. 5.2e-170		
Matches 313; Conservative	5	Mismatches 4	Indels 0	Gaps 0

QY 1 MDSTIPVATGETELTLPINGREETPCYKQUTSFTGLTCTVSLVATLGNAAVLMLGCMRRNNA 60

Db 1 MDSTIPVATGETELTLPINGREETPCYKQUTSFTGLTCTVSLVATLGNAAVLMLGCMRRNNA 60

QY 61 VSIIYILNLVAANFLPLSGHIIIESPPLINIRHPISKILSPVMTFPYFGLSMLSAISTER 120

Db 61 VSIIYILNLVAANFLPLSGHIIIESPPLINIRHPISKILSPVMTFPYFGLSMLSAISTER 120

QY 121 CTSIIIMPWYHCRPRRYLSSVNCVTLMLALSILRSILEMFCDFLPSGANSVWCERSDFT 180

Db 121 CTSIIIMPWYHCRPRRYLSSVNCVTLMLALSILRSILEMFCDFLPSGANSVWCERSDFT 180

QY 121 CTSIIIMPWYHCRPRRYLSSVNCVTLMLALSILRSILEMFCDFLPSGANSVWCERSDFT 180

Db 121 CTSIIIMPWYHCRPRRYLSSVNCVTLMLALSILRSILEMFCDFLPSGANSVWCERSDFT 180

QY 181 IMAVLFLCVALLCGSSLVLLVRLILCGSRKKMPLRLVYTLITLVLFVLGCLPGCIOMALFS 240

Db 181 IMAVLFLCVALLCGSSLVLLVRLILCGSRKKMPLRLVYTLITLVLFVLGCLPGCIOMALFS 240

QY 241 RIHLDMKVLFCVHVLVSIPLSALNLSANDIYFVFGSFRQRONRMLKVLGRALODTPE 300

Db 241 RIHLDMKVLFCVHVLVSIPLSALNLSANDIYFVFGSFRQRONRMLKVLGRALODTPE 300

QY 301 VDEGGGMLPQETIELSGSKLEQ 322

Db 301 VDEGGGMLPQETIELSGSKLEQ 322

QY 301 VDEGGGMLPQETIELSGSKLEQ 322

Db 301 VDEGGGMLPQETIELSGSKLEQ 322

RESULT 13  
ABP81750

ID ABP81750 standard; protein; 322 AA.

AC ABP81750;

DT 04-MAR-2003 (first entry)

DE Human G protein-coupled receptor MRGX3 protein SEQ ID NO:674.

KM G protein-coupled receptor; GPCR; antigenic peptide; gene therapy;  
KM G protein-coupled receptor modulator; antibody; immune-related disease;  
KM growth-related disease; cell regeneration-related disease; AIDS; cancer;  
KM immunologic-related disease; cell proliferative disease; autoimmune disease;  
KM Alzheimer's disease; atherosclerosis; infection; osteoarthritis; allergy;  
KM osteoporosis; cardiomyopathy; inflammation; Crohn's disease; diabetes;  
KM graft versus host disease; Parkinson's disease; multiple sclerosis; pain;  
KM peoriasis; anxiety; depression; schizophrenia; dementia; memory loss;  
KM mental retardation; epilepsy; asthma; tuberculosis; obesity; nausea;  
KM hypercenaion; hypotension; renal disorder; rheumatoid arthritis; trauma;  
KM ulcer.

OS Homo sapiens.

PN WO200261087-A2

PD 08-AUG-2002

PF 19-DEC-2001; 2001WO-US050107.

PR 19-DEC-2000; 2000US-0257144P.

PA (LIFE-) LIFESPAN BIOSCIENCES INC.

PI Burner GC, Roush CL, Brown JP;

DR WPI; 2003-046718/04.

XX

PT New isolated antigenic peptides e.g., for G protein-coupled receptors  
PT (GPCR), useful for diagnosing and designing drugs for treating conditions  
PT in which GPCRs are involved, e.g. AIDS, Alzheimer's disease, cancer or  
PT autoimmune diseases.

PS Disclosure; Flg 1; 523pp; English.

The present invention describes antigenic peptides (I) comprising: (a) any one of 1601 sequences (see ABP82019 to ABP83619) of 12-24 amino acids. Also described: (1) an assay for the detection of a particular G protein-coupled receptor (GPCR) or a candidate polypeptide in a sample; and (2) an isolated antibody having high specificity and high affinity or avidity for a particular GPCR. (I) can be used as GPCR modulators and in gene therapy. The antigenic peptides for GPCRs are useful in detecting an antibody against a particular GPCR, and in the production of specific antibodies. The peptides and antibodies are also useful for detecting the presence or absence of corresponding GPCRs. The antigenic peptides for GPCRs and antibodies are useful for diagnosing and designing drugs for treating immune-related diseases, growth-related diseases, cell regeneration-related diseases, immunological-related cell proliferative diseases, or autoimmune diseases, e.g. AIDS, Alzheimer's disease, atherosclerosis, bacterial, fungal, protozoan or viral infections, osteoarthritis, osteoporosis, cancer, cardiomyopathy, chronic and acute inflammation, allergies, Crohn's disease, diabetes, graft versus host disease, Parkinson's disease, multiple sclerosis, pain, psoriasis, anxiety, depression, schizophrenia, dementia, mental retardation, memory loss, epilepsy, asthma, tuberculousis, obesity, nausea, hypertension, hypohension, renal disorders, rheumatoid arthritis, trauma, ulcers, or any other disorder in which GPCRs are involved. The antibodies may be used in immunoassays and immunodiagnosis. ABZ42523 to ABZ48869 encode GPCR proteins given in ABP81675 to ABP82018, which are used in the exemplification of the present invention

**SQ** Sequence 322 AA;

Query Match 97.1%; Score 1642; DB 6; Length 322;

Best Local Similarity 97.2%; Pred. No. 5.2e-170; Matches 313; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

```
OY 1 MDPTIPVLGKTLPIINGREETPCYNOTLSFTGLTCTIISVALTGNVWVLMGLGCRMRNA 60
DB 1 MSTTIPVLGTELTPIINGREETPCYKOTLSFTGLTCTISVALTGNVWVLMGLGCRMRNA 60
OY 61 VSIYIILNVAANFLFLSGHIIIFSPPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
DB 61 VSIYIILNVAADFLFLSGHIIICSPPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
OY 121 CUSILMPWYHCRPRYILSSVWCVLMLALSLRSIIEMFCDFLFGADSVWCETSDFIT 180
DB 121 CUSILMPWYHCRPRYILSSVWCVLMLALSLRSIIEMFCDFLFGADSVWCETSDFIT 180
OY 181 IAMLVFLCVLLCGSSVLVLRILCGSRKMPLTRLYVTILLTVLVFLCGIPGIQWALFS 240
DB 181 IAMLVFLCVLLCGSSVLVLRILCGSRKMPLTRLYVTILLTVLVFLCGIPGIQWALFS 240
OY 241 RIHLDMKVLFCVHLVSIIFLSALNSSANPIIYFVGSFRORONRMLKVLQRALDTPB 300
DB 241 RIHLDMKVLFCVHLVSIIFLSALNSSANPIIYFVGSFRORONRMLKVLQRALDTPB 300
OY 301 VDEGGGMLPQETLELSGSKLEQ 322
DB 301 VDEGGGMLPQETLELSGSKLEQ 322
```

## RESULT 14

ADH08535  
ID ADH08535 standard; protein; 322 AA.

AC ADH08535;

XX 25-MAR-2004 (first entry)

DT MrGX3.

DE mas-related gene D; MrGD; Analgesic; Vulnerary; Ophthalmological;

XX sensory perception; glaucoma; MrG.

XX Mus musculus.

OS WO2004003133-A1.

PN 08-JAN-2004.

XX 13-MAY-2003; 2003WO-US015004.

XX 26-JUN-2002; 2002US-00183116.

PR (CALY ) CALIFORNIA INST OF TECHNOLOGY.

PA Anderson DJ, Dong X, Zylka M, Han S, Simon MI;

XX MPI; 2004-083025/08.

DR N-PSDB; ADH08534.

XX New mas-related gene D polypeptides, useful as therapeutics or in  
PT identifying agonists or antagonists that alter pain perception in a  
PT mammal for treating impaired sensory perception, e.g. chronic intractable  
PT pain or neuropathic pain.

PS Disclosure; SEQ ID NO 31; 220pp; English.

XX The present invention relates to an isolated mas-related gene D (MrGD)  
CC polypeptide. The MrGD polypeptides are useful as therapeutics or for  
CC identifying compounds, i.e. agonists or antagonists, that alter pain  
CC perception in a mammal. The compounds are useful for treating impaired  
CC sensory perception, e.g. chronic intractable pain or neuropathic pain,  
CC promoting wound healing, restoring normal sensitivity following injury,  
CC or treating ocular conditions, particularly those associated with  
CC pressure such as glaucoma. The MrG genes or proteins may be used as

CC molecular probes for the detection of cells or tissues related to or  
CC involved with sensory perception. The present sequence represents a MrGA  
CC (MrG subfamily) protein.

XX Sequence 322 AA;

XX Query Match 97.1%; Score 1642; DB 8; Length 322;

Best Local Similarity 97.2%; Pred. No. 5.2e-170; Matches 313; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

```
OY 1 MDPTIPVLGKTLPIINGREETPCYNOTLSFTGLTCTIISVALTGNVWVLMGLGCRMRNA 60
DB 1 MSTTIPVLGTELTPIINGREETPCYKOTLSFTGLTCTISVALTGNVWVLMGLGCRMRNA 60
OY 61 VSIYIILNVAANFLFLSGHIIIFSPPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
DB 61 VSIYIILNVAADFLFLSGHIIICSPPLINIRHPISKILSPVMTFPYFIGLSMLSAISTER 120
OY 121 CUSILMPWYHCRPRYILSSVWCVLMLALSLRSIIEMFCDFLFGADSVWCETSDFIT 180
DB 121 CUSILMPWYHCRPRYILSSVWCVLMLALSLRSIIEMFCDFLFGADSVWCETSDFIT 180
OY 181 IAMLVFLCVLLCGSSVLVLRILCGSRKMPLTRLYVTILLTVLVFLCGIPGIQWALFS 240
DB 181 IAMLVFLCVLLCGSSVLVLRILCGSRKMPLTRLYVTILLTVLVFLCGIPGIQWALFS 240
OY 241 RIHLDMKVLFCVHLVSIIFLSALNSSANPIIYFVGSFRORONRMLKVLQRALDTPB 300
DB 241 RIHLDMKVLFCVHLVSIIFLSALNSSANPIIYFVGSFRORONRMLKVLQRALDTPB 300
OY 301 VDEGGGMLPQETLELSGSKLEQ 322
DB 301 VDEGGGMLPQETLELSGSKLEQ 322
```

## RESULT 15

ADO44602  
ID ADO44602 standard; protein; 322 AA.

XX ADO44602;

XX 29-JUL-2004 (first entry)

XX Human HIT7213 protein.

DE HIT7213; transgenic; G protein-coupled receptor; GPCR; ophthalmological;

XX cytostatic; nephrotoxic; antiinflammatory; dermatological; analgesic;

XX vulnerable; neuroprotective; human; receptor.

OS Homo sapiens.

PN WO2004039972-A1.

XX 13-MAY-2004.

XX 28-OCT-2003; 2003WO-JP013781.

XX 29-OCT-2002; 2002JP-00314141.

PA (TAKA ) TAKEDA CHEM IND LTD.

XX Kaisho Y, Watanabe T, Yasuhara Y, Mori I, Takeomi S;

XX MPI; 2004-376191/35.

DR N-PSDB; ADO44603.

XX HIT7213 protein, encoded DNA and transgenic animals for clarifying  
PT pathological mechanism, developing therapeutic methods and screening  
PT preventives or remedies for related diseases e.g. cataract, cancer, and  
PT dermatitis.

XX Claim 3; SEQ ID NO 1; 161pp; Japanese.

CC The invention relates to a non-human mammal that carries a DNA integrated  
CC with a foreign H17T213 or its mutant gene, or a part of it. The non-human  
CC animal is particularly a rat. Such gene shows phenotypes of e.g. cataract  
CC onset, transient skin rash and proliferation-promoting activity. The  
CC foreign H17T213 gene is a gene that encodes a G protein-coupled receptor  
CC (GPCR) protein H17T213. The protein, its encoded DNA and constructed  
CC transgenic animals are useful for clarifying pathological mechanism,  
CC developing therapeutic methods and screening preventives or remedies for  
CC related diseases e.g. cataract, cancer, and dermatitis. The present  
CC sequence represents a human H17T213 protein.

XX  
SQ Sequence 322 AA;

Query Match 97.1%; Score 1642; DB 8; Length 322;  
Best Local Similarity 97.2%; Pred. No. 5,2e-170;

Matches 313; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

Qy	1	MDPTIPVIGTKLPINGRETPCYNQTSFTGLTCTISLVALTGNAVLMILGCRMRRNA	60
Db	1	MDSTIPVIGTEBTPINGRETPCYKQTLSTFTGLTCTIVSIALTGNAVLMILGCRMRRNA	60
Qy	61	VSIIYILNLYAANFLPLSGHITFSPLPLINIRHPISKILSPVMTFPPYFGLSMLSAISTER	120
Db	61	VSIIYILNLYAADFLPLSGHITCSPLRLINIRHPISKILSPVMTFPPYFGLSMLSAISTER	120
Qy	121	CLSIIMPPIWYHCRPPRYLSSVMCVLLMALSLRSILEMMFCDFLFGSANSVWCETSDFTT	180
Db	121	CLSIIMPPIWYHCRPPRYLSSVMCVLLMALSLRSILEMMFCDFLFGSADSVWCETSDFTT	180
Qy	181	IAMLVFLCVLLCGSSILVLLVRLICGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS	240
Db	181	IAMLVFLCVLLCGSSILVLLVRLICGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQWALFS	240
Qy	241	RIHLDMKVLFCVHVLVSTFLSALNSSANPIYFVGSFRORONRLKVLORALDTPB	300
Db	241	RIHLDMKVLFCVHVLVSTFLSALNSSANPIYFVGSFRORONRLKVLORALDTPB	300
Qy	301	VDEGGWLPQETTELSSKLEQ	322
Db	301	VDEGGWLPQETTELSSKLEQ	322

Search completed: February 3, 2006, 20:27:05  
Job time : 205 secs

GenCore version 5.1.7  
Copyright (c) 1993 - 2006 Bioacceleration Ltd.

OM protein - protein search, using sw model

Run on: February 3, 2006, 20:27:24 ; Search time 43 Seconds

(without alignments)  
720.507 Million cell updates/sec

Title: US-10-747-702-3

Perfect score: 1691

Sequence: 1 MDPTLPVIGTKLTPINGREE.....EGGGMIPQETLISGSKLEQ 322

Scoring table: BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 283416 seqs, 96216763 residues

Total number of hits satisfying chosen parameters: 283416

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-Processing: Minimum Match 0%

Maximum Match 100%  
Listing first 45 summaries

Database :  
1: pir1:\*  
2: pir2:\*  
3: pir3:\*  
4: pir4:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

#### SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	453	26.8	378	2	A39485 transforming prote
2	440.5	26.0	324	1	TVRRAS transforming prote
3	429.5	25.4	325	1	TVRRAS transforming prote
4	422.5	25.0	324	2	AS1001 transforming prote
5	367.5	21.7	343	2	A35639 G protein-coupled
6	237	14.0	355	2	QJ1231 inter-leukin-8 rece
7	236.5	14.0	354	2	A23669 inter-leukin-8 rece
8	228	13.5	353	2	A23009 FMLP-related recep
9	222.5	13.2	369	2	D41795 somatostatin recep
10	222.5	13.2	369	2	A45291 somatostatin recep
11	217.5	12.8	346	2	S29248 somatostatin recep
12	216.5	12.8	358	2	A53752 inter-leukin-8 rece
13	215.5	12.7	360	2	A53611 inter-leukin-8 rece
14	215.5	12.7	363	2	A57840 somatostatin recep
15	214	12.7	351	2	B42809 FMLP-related recep
16	207	12.2	369	2	UC2083 somatostatin recep
17	206.5	12.2	355	2	A55733 somatostatin recep
18	203.5	12.0	369	2	B41795 G protein-coupled
19	203.5	12.0	473	2	JCS635 anaphylatoxin C3a
20	203	12.0	356	2	S42096 inter-leukin-8 rece
21	202	11.9	363	2	IS7955 somatostatin recep
22	202	11.9	364	2	JN0763 somatostatin recep
23	201	11.9	380	2	S36143 kappa opioid recep
24	200	11.8	380	2	A48227 kappa opioid recep
25	200	11.8	388	2	JN0605 somatostatin recep
26	197	11.6	380	2	UC2434 kappa opioid recep
27	196	11.6	350	1	A37963 complement C5a ana
28	195.5	11.6	504	2	A41783 tachykinin recepto
29	195	11.5	333	2	I65989 G protein-coupled

30	195	11.5	352	2	A46520 N-formyl peptide r
31	194.5	11.5	371	2	JCS498 G protein-coupled
32	194	11.5	380	2	A55259 kappa opioid recep
33	192.5	11.4	384	2	A47249 brain-specific som
34	191	11.3	380	2	JC2338 kappa opioid recep
35	190	11.2	384	2	JC4629 somatostatin recep
36	189	11.2	364	2	A49542 N-formyl peptide c
37	188.5	11.1	352	1	S27357 complement C5a ana
38	188.5	11.1	375	2	JCS069 G protein-coupled
39	186.5	11.0	350	2	A39445 inter-leukin-8 rece
40	186.5	11.0	353	2	JC2492 G protein-coupled
41	183.5	10.9	371	2	UC5796 probable chemotatr
42	180.5	10.7	359	2	A48921 inter-leukin-8 rece
43	180.5	10.7	391	2	A41795 somatostatin recep
44	180.5	10.7	391	2	A41795 somatostatin recep
45	180.5	10.7	391	2	A39297 somatostatin recep

#### ALIGNMENTS

##### RESULT 1

A39485 transforming protein (mrg) - human

C/Species: Homo sapiens (man)

C/Date: 28-Feb-1992 #sequence\_revision 17-Apr-1993 #text\_change 09-Jul-2004

C/Accession: A39485

R/Monot. C./ Weber, V.; Stinakre, J.; Bihoreau, C.; Teutsch, B.; Corvol, P.; Clauser, F

Mol. Endocrinol. 5, 1477-1487, 1991

A/Title: Cloning and functional characterization of a novel mas-related gene, modulating

A/Reference number: A39485; MUID:92130997; PMID:1723144

A/Accession: A39485

A/Status: preliminary

A/Molecule type: DNA

A/Residues: 1-378 <MON>

A/Cross-references: UNIPROT:P35410; UNIPARC:UPI00003B44C; GB:S78653; NID:g244209; PIDN:f

A/Suprafamily: mas transforming protein

C/Keywords: G protein-coupled receptor; transmembrane protein

Query Match	26.8%	Score 453;	DB 2;	Length 378;
Best Local Similarity	36.7%	Pred. No. 5.9e-30;		
Matches 105;	Conservative 55;	Mismatches 80;	Indels 46;	Gaps 9;
QY	36	IISLVALTGNNAVLMILGCMRRNNAVSIIYINLVANPFL-----SGHI 80		
DB	84	IVSLGCVLNGVTFMILCCG-ATNPYMYIIMHVADVIYLCSSANGFQVTLITTHGV 142		
QY	81	ITSPLPLINIRHPISKIISPVMTFPYFGLSMLSAISTERCISIIMPIYHCRPRYLS 140		
DB	143	FRIP-----DPLAIISP---FSPEVCLCLVAISTERCVCLPPIYRCHRPXTSN 191		
QY	141	WNCVLMALSLRSIEMFCDFLPSGANSWCSTSD---FITIAML--VFLCVTLGSS 195		
DB	192	VVCTLIWGLPFCINIVKSLFLTY-----WKHVACVIFPKLSGLFAHISLVWCSS 243		
QY	196	LVTLVRLIGSRKMPFLRYVITLVLFVLCGPFQIOWLFSRIHDMVKLFCVHL 255		
DB	244	LVTLIRFLCCSQOQKATRYAVVOISAPFLLMALPLSV-----ALITDFKAFVTTSTL 298		
QY	256	VSIFPLANSSANPPIYFVSGFRORONRNDKLVLRALQDTPREV 301		
DB	299	ISLFL-INSSANPPIYFVSGLRKKRLKESRVLIIQRALADKPEV 343		

##### RESULT 2

transforming protein mas - rat

C/Species: Rattus norvegicus (Norway rat)

C/Date: 31-Dec-1989 #sequence\_revision 31-Dec-1989 #text\_change 09-Jul-2004

C/Accession: A31816

R/Young, D.; O'Neill, K.; Jessell, T.; Wigler, M.

Proc. Natl. Acad. Sci. U.S.A. 85, 5339-5342, 1988

A/Title: Characterization of the rat mas oncogene and its high-level expression in the hi

A:Reference number: A31816; MUID:88276953; PMID:2455902  
A:Accession: A31816  
A:Molecule type: mRNA  
A:Residues: 1-324 <YOU>  
A:Cross-references: UNIPROT:P12526; UNIPARC:UPI0000043DE7; GB:J03823; NID:G205313; PIDN:  
C:Genetics:  
A:Gene: mas  
C:Superfamily: mas transforming protein  
C:Keywords: G protein-coupled receptor; transforming protein; transmembrane protein  
F:31-47/Domain: transmembrane #status predicted <TM1>  
F:72-88/Domain: transmembrane #status predicted <TM2>  
F:149-165/Domain: transmembrane #status predicted <TM3>  
F:185-204/Domain: transmembrane #status predicted <TM4>  
F:225-243/Domain: transmembrane #status predicted <TM5>

Query Match	26.0%	Score 440.5	DB 1	Length 324
Beet local similarity	38.0%	Pred. No. 5.5e-29		
Matches 108; Conservative 56; Mismatches 97; Indels 23; Gaps 9;				

[illegible]

TVHUS  
 transforming protein mas - human  
 C|Species: Homo sapiens (man)  
 C|Date: 04-Dec-1986 #sequence\_revision 04-Dec-1986 #text\_change 09-Jul-2004  
 C|Accession: A01375  
 R|Young, D.; Matches, G.; Birchmeier, C.; Pasano, O.; Wigler, M.  
 Cell 45, 711-719, 1986  
 A|Title: Isolation and characterization of a new cellular oncogene encoding a protein with  
 A|Reference number: A01375; MUID:86218084; PMID:3708691  
 A|Accession: A01375  
 A|Molecule type: DNA  
 A|Residues: 1-325 <YOL>  
 A|Cross-references: UNIPROT:E04201, UNIPARC:UPI0000050458, GB:M13150, NID:G187388, PIDDN  
 C|Genetics:  
 A|Gene: GDB:MAS1  
 A|Cross-references: GDB:120166; OMTM:165180  
 A|Map position: 6q24-q27  
 C|Superfamily: mas transforming protein  
 C|Keywords: G protein-coupled receptor, glycoprotein, proto-oncogene, transforming prote  
 F|31-61/Domain: transmembrane #status predicted <TM1>  
 F|66-97/Domain: transmembrane #status predicted <TM2>  
 F|105-135/Domain: transmembrane #status predicted <TM3>  
 F|150-172/Domain: transmembrane #status predicted <TM4>  
 F|186-214/Domain: transmembrane #status predicted <TM5>  
 F|225-250/Domain: transmembrane #status predicted <TM6>  
 F|255-286/Domain: transmembrane #status predicted <TM7>  
 F|5-16,32,272/Binding site: carbohydrate (Asn) (covalent) #status predicted

Query Match	25.4%	Score 429.5	DB 1	Length 325
Best Local Similarity	34.7%	Pred. No. 4.4e-28		
Matches 107		Conservative 63	Mismatches 111	Indels 27
			Gaps	8

```

QY      2  DPTIPVIGTKLPINGREESTPCYNOTTLEFTGJTCISIVALTGAUWMLYLGCSMRANAV 61
Db      13  EPTNISTGKNAVSQNAHQOIPVYHNVY-----MSISVGVGEVGIILMFLCPRMRNPF 66
QY      62  SIYILNVANPFLPSGHIIIFS-----DLPLINIRHPIKSLSPVMPYPYIGISMLSAI 116
Db      67  TVYITHLSADISSLFCIFITISIDVALDYELSGHYIYVTLSTVLFQYNTGILYLTAI 126
QY      117  STERCISIIIMPYWHCRPRYVLSVWCULMALSLNSILEMMCDLFPSCANVWCETS 176
Db      127  SVERCISVYPIYWRCHRPKYQSALVYCALMALSLCTVYTWEEYVNCIDREESHSHS---RN 182
QY      177  D-----FTTI-AMLVFLCVLCCSSVLVLRILCGSKMELRTLYVTIILLTVVFLCG 229
Db      183  DCRAVYIIFALISFLVEFVFLPMLV--SSTLVYKIRKNTASHSSKLYIVIMWTIIIFIFA 241
QY      230  LPRGIGMALESRIHLDWKVLFCHVNLVSIPLSALNSSANPIIYFPVGSFORONROUKL 289
Db      242  MPRMLLYLVLYEY--WST-FGNLHHISLSTINSANPIIYFVGSSKKKKRKESLKV 297
QY      290  VLORALOD 297
Db      298  VLTRAFKD 305

```

RESULT 4  
S51001

transforming protein was a mouse

C:Species: Mus musculus (house mouse)

C:\Date: 10-Apr-1996 #sequence\_revision 19-Apr-1996 #text\_change 09-Jul-2004

C;Accession: S51001; 148647; S29619  
R;Metzger, R.; Bader, M.; Ludwig, T.; Berberich, C.; Bunnewald, B.; Ganten, D.

FEBS Lett. 357, 27-32, 1995

A:Reference number: S51001; MUID:95094925; PMID:80016722

A;Accession: S51001

A;status: nucleic ac  
A;molecule type: DNA

A;Residues: 1-324 <MET>

A; Cross-references: UNIPROT: P30554; UNIPARC: UP1000003B44B; EMBL: A6735  
R-Metzger R.; Bader M.; Ludwig T.; Berberich C.; Bunnemann B.; Ganten D.

FEBS Lett. 357, 27-32, 1995

A;Title: Expression of the mouse and rat mas proto-oncogene in the brain and peripheral  
A;Reference number: T48647: MIMD:95094925: PMID:8001672

A;Accession: I48647

A;Status: preliminary; translated from GB/EMBL/DBJ

```

A;Molecule type: DNA
A;Residues: 1-87, 'I', 89-324 <RES>

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A; Cross-references: UNIPARC:UPI0000029856; EMBL:X67735; NID:g53011; PIDN:CAA47

C;Gene: mas  
A;Gene: mas

C:Superfamily: mas transforming protein

**c; keywords:** G protein-coupled receptor; proto-oncogene; transmembrane protein

Query Match	Score	DB 2	Length	324
25.0%	422.5			

```

Best Local Similarity 31.7%; Pred. NO. 1.1e-21;
Matches 107; Conservative 55; Mismatches 99; Indels 23; Gaps 9;

```

SECRET

QY 37 ISLVALIGNAVVLTWLGCRMKRNASIYLNLVAAFLFSLGHIIFS-----FLFLINAK 38

Db 41 ISPLGEVENGILLWFLCFMRMRNPFTVYITHLSMADISLLFCIFILSTDYALDYELSSGH 10

92 HPISKTI,SPVMTPEYFIGLSMLSAISTERCLSLWPIMWYHCRPRYLSSVMCVLLWALS 15

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D6 101 HYTIIVTSLVTEFGYNTGLYLLTAISVERCLSVLPYPIWYISHRPKHQSAFVCALLCALSC 10

152 LRSILEWMECDFLESGANSVCETSD-----FITI-AMLVFLCVLCGSSLVLLVRILC 20

163 YTTMEYVMC--IDSGEES--HSRSDCRAVITFIATISPLVETPLMLVSSS-ILVKIRK 21

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205 GSRKMPLTRLYVTILLTVLVEFLLCGLPFGIQWALFSRHHLDWKVLFCVHVLVSIELSALN 26

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[illegible]

A: Experimental source: neutrophils  
 A: Note: sequence extracted from NCBI backbone (NCBIN:81526, NCBI:81530)  
 C: Superfamily: vertebrate rhodopsin  
 C: Keywords: G protein-coupled receptor; transmembrane protein

Query Match 14.0%; Score 237; DB 2; Length 355;  
 Best Local Similarity 27.6%; Pred. No. 3,4e-12;  
 Matches 93; Conservative 60; Mismatches 104; Indels 80; Gaps 18;

QY 10 TKLTPINGREETPC--VNOTLS---FTGLTCIISLVALTGA-VVIMLGCRRNRNAVSI 63  
 Db 23 TGMPEVE-KDYSPLCVQTINKYVVVYVALVFLSLGNSLVMLVILYSRNSRSTVD 81  
 QY 64 YILNVANFLFLSGHIFSPPLN-----IRHYSKILSPVMTFPYTGSLMSAIS 117  
 Db 82 YILNVAMADLLF---ALTMPVAWSKEKGIFFGPLCKVSVLVKEVNFYSGLLLACIS 137  
 QY 118 TERGISLMPITWYHCR---PRYLSVWCVLMLSLRSILEMFCDFLFGSANG--V 171  
 Db 138 VDRYAIY----HATRTLTQKRHLVKFCLGIWALSLTSLSPFLFRQ-VFSPNNSSPV 191  
 QY 172 WCETSDFTTAMVLVLCV--LCGSSLVLVAILC-GSRKMPLTRLV-----TILL 220  
 Db 192 CYEDLGHTAKRWMLRLPHFTGFLPLVLMFCGFLRTLRFQAHMGQKRAMRYIFA 251  
 QY 221 TVLVFLCGLPFGIOMALFSRIHLDKVLFC---HVHLV-----SIFL 260  
 Db 252 VLVFLCMLPYNL-----VLLADTLMTHTVIOETCORRNDIDRALDAEIL 298  
 QY 261 SALNSANPIIYFVYSGFRQRONRON--IKLVLQRL 295  
 Db 299 GLHSCILNPITYAFIG---QNFNGLFLKMLAAGL 330

RESULT 7  
 A23669  
 interleukin-8 receptor, high affinity - rabbit  
 N/Alternate names: FMLP receptor  
 C/Species: Oryctolagus cuniculus (domestic rabbit)  
 C/Date: 22-Jan-1993 #sequence\_revision 22-Jan-1993 #ext\_change 09-Jul-2004  
 C/Accession: A23669  
 R/Thomas, K.M.; Pyun, H.Y.; Navarro, J.  
 J. Biol. Chem. 265, 20061-20064, 1990  
 A/Title: Molecular cloning of the fMet-Leu-Phe receptor from neutrophils.  
 A/Reference number: A23669; MUID:91056034; PMID:1700779  
 A/Accession: A23669  
 A: Molecule type: mRNA  
 A: Residues: 1-354 <THO>  
 A: Cross-references: UNIPROT: P21109; UNIPARC: UPI0000156FB7; GB: M58021; GB: J05705; NID: G16165  
 C: Superfamily: vertebrate rhodopsin  
 C: Keywords: G protein-coupled receptor; glycoprotein; membrane protein; neutrophil

Query Match 14.0%; Score 236.5; DB 2; Length 354;  
 Best Local Similarity 29.4%; Pred. No. 3.7e-12;  
 Matches 96; Conservative 54; Mismatches 117; Indels 59; Gaps 17;

QY 10 TKLTPINREETPC--VNOTLS---FTGLTCIISLVALTGA-VVIMLGCRRNRNAVSI 63  
 Db 23 TGMPEVE-KDYSPLCVQTINKYVVVYVALVFLSLGNSLVMLVILYSRNSRSTVD 81  
 QY 64 YILNVANFLFLSGHIFSPPL-PLINIRHYSKILSPVMTFPYTGSLMSAISTERC 121  
 Db 82 YILNVAMAP-AFCPDHAYIGRLQGRKLDFTPLCKVSVLVKEVNFYSGLILLACISVDY 140  
 QY 122 LSLMPITWYHCRPRYLSVWCVLMLSLRSILEMFCDFLFGSANG--WCETSDFT 179  
 Db 141 LAIVQST-RTLQKRHLVKFCLGIWALSLTSLSPFLFRQ-VFSPNNSSPVCEYEDLGN 198  
 QY 180 TIAMVLVLCV-----CGSSLVLVAILC-GSRKMPLTRLV-----TILLTV 224  
 Db 199 TAKV-----CMVLRILPHFTGFLPLVLMFCGFLRTLRFQAHMGQKRAMRYIFAVVLI 254  
 QY 225 FLVLCGLPFG-----TQWALFSRIHLDKVLFCVHVLVSIPLSALNSANPII 271

Db 255 FLICMLPYLVLLADTLMKTHVYQETQGRNELDRALDATEI-----LGFILSHCLNPII 308  
 QY 272 YFVFGSFRQRQRQN--LTLVYQRL 255  
 Db 309 YAFIG-----QNFRRGFLKMLAARGL 329

## RESULT 8

C42009

FMLP-related receptor 2 - human

N/Alternate names: FMLP-related receptor 1, probable chemotactic receptor FPRH2

C/Species: Homo sapiens (man)

C/Date: 30-Sep-1993 #sequence\_revision 30-Sep-1993 #text\_change 09-Jul-2004

C/Accession: C42009

R/Bao, L.; Gerard, N.P.; Bddy Jr., R.L.; Shows, T.B.; Gerard, C.

Genomics 13, 437-440, 1992

A/Title: Mapping of genes for the human C5a receptor (C5AR), human FMLP receptor (FPR),

A/Reference number: A42009; MUID:92307681; PMID:1612600

A/Accession: C42009

A/Status: nucleic acid sequence not shown

A/Molecule type: DNA

A/Residues: 1-353 &lt;BAO&gt;

A/Cross-references: UNIPROT:P25089, UNIPARC:UPI0000050485; GB:M76673; NID:g182668; PID:g

C/Comment: This fmet-Leu-Phe receptor homolog, whose ligand is not yet known, appears to

C/Genetics:

A/Gene: GDB:FPRL2

A/Cross-references: GDB:12885; OMIM:136539

A/Map position: 19q13.3-19q13.4

A/Introns: #status absent

C/Superfamily: vertebrate rhodopsin

C/Keywords: chemotaxis; G protein-coupled receptor; glycoprotein; transmembrane protein

Query Match 13.5%; Score 228; DB 2; Length 353;  
 Best Local Similarity 23.2%; Pred. No. 1.9e-11;  
 Matches 79; Conservative 77; Mismatches 113; Indels 72; Gaps 15;

QY 14 PINGRE-----PCYNQTLSTFTGTCIISLVALTGNVAVLMLGCRMRNAVSIYI 65  
 Db 8 PLNETEVLPERAGHVLVWIFSLVGVTFVFGVL---GNGYIVWVAGPMTTWTATTC 64  
 QY 66 LNLVAAVFLFLSGHIFSPPLINL---RHP---ISKLSVMTFPYFVIGLSMLSAIS 117  
 Db 65 LNLALADFSSFA---ILFPRMVSVMREKMPASFLCKLVHMIDINLFVSYYLITIIA 120  
 QY 118 TERCLSLMPVWCHCRPRVLSVVCVLMALSLSLILEMFP-----CDPLP 165  
 Db 121 LDRCLVLPVMAQNRHTMSLARVMTGLWIFVTLFVLPFTTISTTNGDTTCIFNF 180  
 QY 166 SGANSVWCET-----SDFTIAMLVFLCVLTCSSSLVLAIRILC-----G 205  
 Db 181 ----AWGDAVAVRLAVVFTIMAVFLIRHIFITVPMSTITVGYIAKIHNMIXS 236  
 QY 206 SRKPLRLVLTLLTVLVFLGLGLP--GIOMALFSR---IHLDMKVLFCVHLVSTF 259  
 Db 237 SR--PL-RVPAV---VASPFICMFPYELIGILMAVLMKMLNGKKXIIILVINPTS-S 289  
 QY 260 LSLANSSANPIIFPVGSFRQRQRNQLKVLQRLADPTE 300  
 Db 290 LAFFNSCLNPIILYVFMGRNFORLIRSLPTSLRALTEVPD 330

## RESULT 9

D41795

somatostatin receptor 2 - mouse

C/Species: Mus musculus (house mouse)

C/Date: 30-Sep-1993 #sequence\_revision 30-Sep-1993 #text\_change 09-Jul-2004

C/Accession: D41795; I56236

R/Jamada, Y.; Post, S.R.; Wang, K.; Tager, H.S.; Bell, G.I.; Setino, S.

Proc. Natl. Acad. Sci. U.S.A. 89, 251-255, 1992

A/Title: Cloning and functional characterization of a family of human and mouse somatost

A/Reference number: A41795; MUID:92108031; PMID:1346068

A/Accession: D41795

A/Status: nucleic acid sequence not shown

A/Molecule type: DNA

A/Residues: 1-369 &lt;YAM&gt;

A/Cross-references: UNIPROT:P30875; UNIPARC:UPI0000000447; GB:M81832; NID:g201060; PIDN:f

R/Elloft, D.E.; Metwalli, A.; Blum, A.M.; Sandor, M.; Lynch, R.; Weinstock, J.V.

J. Immunol. 153, 1180-1186, 1994

A/Title: T lymphocytes isolated from the hepatic granulomas of schistosome-infected mice

A/Reference number: I56236; MUID:94300079; PMID:7913111

A/Accession: I56236

A/Status: preliminary; translated from GB/EMBL/DBJ

A/Molecule type: mRNA

A/Residues: 99-309 &lt;RES&gt;

A/Cross-references: UNIPARC:UPI00001778F0; GB:S71756; NID:g560631

C/Superfamily: vertebrate rhodopsin

C/Keywords: G protein-coupled receptor; hormone receptor; transmembrane protein

Query Match 13.2%; Score 222.5; DB 2; Length 369;  
 Best Local Similarity 28.0%; Pred. No. 5.5e-11;  
 Matches 94; Conservative 58; Mismatches 129; Indels 55; Gaps 18;

QY 8 LGTKLPINGREET-PCYNQTLSTFTGTCIISLVALTGNVAVLM-LIGCRMRNAVSI 63  
 Db 21 LNSLGPSSNGSNOTBEYDMTSNAVLTFYFVVCVGLCGNTLVILRYAKMKTTINI 80  
 QY 64 YILNLVAAVFLFLSGHIFSPPLINIRPISK-ILSPVMT---PPYFGLSMLSAISTE 119  
 Db 81 YILNLALADELFMLG-LPFLAMQVALVHMPFGKALCRVMTVDGINQFTSIFCLTVMSID 139  
 QY 120 RCLSLMPV---WYHCRPRVLSVVCVLMALSLSLILEMFP-----CD 162  
 Db 140 RYLAHVHPFKSAKM---RPR-TAKMINVAVCVSL-LVILIMTYAGLRSMQKSSCT 194  
 QY 163 PLFSGANSVWCETSDFTIAMLVFLCV---VLGSLVLLVR-----ILGSRKMPLTR 214  
 Db 195 IMPGSSGM--YTGIIYAFILGLVPLTICLCLVFIIVKSSGIRVSSKRKSK 252  
 QY 215 YVT--ILLTVLVFLGLGLP-----GIOMALFSRHLDKVLFCVHLVSTFSLNNS 266  
 Db 253 KYTRMVSIVAAVFIEMLPFYIENSVSVASPPPAL--KMPFV---VILTYANSC 306  
 QY 267 ANPIIFPVGSFRQRQRNQLKVLQRLADPTEVD 302  
 Db 307 ANPIIYAFSLDNFKFSFQVNLCLVKVSGTEDEERSD 342

## RESULT 10

A45291

somatostatin receptor, somatotropin release-inhibiting factor receptor, SRIF receptor -

C/Species: Rattus norvegicus (Norway rat)

C/Date: 25-Mar-1993 #sequence\_revision 18-Nov-1994 #text\_change 09-Jul-2004

C/Accession: A45291

R/Kuxen, F.W.; Bruns, C.; Lubbert, H.

Proc. Natl. Acad. Sci. U.S.A. 89, 4618-4622, 1992

A/Title: Expression cloning of a rat brain somatostatin receptor cDNA.

A/Reference number: A45291; MUID:92262491; PMID:1374509

A/Accession: A45291

A/Status: preliminary

A/Molecule type: mRNA

A/Residues: 1-369 &lt;RTU&gt;

A/Cross-references: UNIPROT:P30680; UNIPARC:UPI0000135FF7; GB:M93273; NID:g207026; PIDN:f

A/Note: sequence extracted from NCBI backbone (NCBIN:102315; NCBI:P1102316)

C/Superfamily: vertebrate rhodopsin

C/Keywords: G protein-coupled receptor; transmembrane protein

Query Match 13.2%; Score 222.5; DB 2; Length 369;  
 Best Local Similarity 28.0%; Pred. No. 5.5e-11;  
 Matches 94; Conservative 58; Mismatches 129; Indels 55; Gaps 18;

QY 8 LGTKLPINGREET-PCYNQTLSTFTGTCIISLVALTGNVAVLM-LIGCRMRNAVSI 63  
 Db 21 LNSLGPSSNGSNOTBEYDMTSNAVLTFYFVVCVGLCGNTLVILRYAKMKTTINI 80  
 QY 64 YILNLVAAVFLFLSGHIFSPPLINIRPISK-ILSPVMT---PPYFGLSMLSAISTE 119

```

Db      81 YILNLAIADELFMLG-LPFLAQVALVHMFEGKAIKRVVMTVDGINQFTSIFCLTWSID 139
QY      120 RCLSTLMPI-----WYHCRPRYLSVVCVLLMALSLRSLIEMWF-----CD 162
Db      140 RYLAIVHPIKSAKM---RRPR-TAKMINAVAMGVSL-LVLPMTIYAGLRSNOMGSSCT 194
QY      163 PLFSGANSVWCETSDPITIAMLVLCV---VLGSSLVLLVR-----ILGSRKMP/LTRL 214
Db      195 IMPPGSSGAM--YTGFTIYAFILGFLVPLTIIICLCYLFITIIKVSIGIRVSSKRRKSEK 252
QY      215 YVT--ILLVTVFLVLLGCLRP-----GIQWALFSRHLDMKVLFCVHLVSTFLSALNS 266
Db      253 KYTRMWSIVAVAFIFCWLPPYIFNVSSVSVAISPTPAL--KGMFDEV---VILTYANSC 306
QY      267 ANPIIYFVFGSPFRQNRQNLKVLQALQDTPEVD 302
Db      307 ANPIIYAFISDNKSKSFQNVLCIVKVSAGADGERSD 342

```

## RESULT 11

S29248

somatostatin receptor 2B - mouse

C:Species: Mus musculus (house mouse)

C:Date: 13-Jan-1995 #sequence\_revision 13-Jan-1995 #text\_change 09-Jul-2004

C:Accession: S29248

R:Vanetti, M.; Koubu, M.; Wang, X.; Vogt, G.; Hoellt, V.

FEBS Lett. 311, 290-294, 1992

A:Title: Cloning and expression of a novel mouse somatostatin receptor (SSTR2B).

A:Reference number: S29248; MUID:93012001; PMID:1397330

A:Accession: S29248

A:Status: preliminary

A:Molecule type: mRNA

A:Residues: 1-346 &lt;VAN&gt;

A:Cross-references: UNIPROT:P30875; UNIPARC:UP10000044D82; EMBL:X68951; NID:954197; PIDN:

A:Superfamily: vertebrate rhodopsin

C:Keywords: G protein-coupled receptor; transmembrane protein

```

Query Match      12.9%; Score 217.5; DB 2; Length 346;
Best Local Similarity 28.0%; Pred. No. 1.3e-10;
Matches 92; Conservative 55; Mismatches 119; Indels 63; Gaps 19;

```

```

QY      8  LCTKLTPINGREBT-PCYNQTLG-FTGLTIIISLVALTGNVAVLM-LIGCRMRNAVSI 63
Db      21  LKNSLCPGNSGNGTEBYDMTSNAVALTFYFVVCVGLCNTLVIILRYAKMTITNI 80
QY      64  YILNLVAANFLPLSGHIIISPLPILIRHPISK-ILSPVWT---PFYFGLSLMLSAISTE 119
Db      81  YILNLAIADELFMLG-LPFLAQVALVHMFEGKAIKRVVMTVDGINQFTSIFCLTWSID 139
QY      120 RCLSTLMPI-----WYHCRPRYLSVVCVLLMALSLRSLIEMWF-----CD 162
Db      140 RYLAIVHPIKSAKM---RRPR-TAKMINAVAMGVSL-LVLPMTIYAGLRSNOMGSSCT 194
QY      163 PLFSGANSVWCETSDPITIAMLVLCV---VLGSSLVLLVR-----ILGSRKMP/LTRL 214
Db      195 IMPPGSSGAM--YTGFTIYAFILGFLVPLTIIICLCYLFITIIKVSIGIRVSSKRRKSEK 252
QY      215 YVT--ILLVTVFLVLLGCLRP-----GIQWALFSRHLDMKVLFCVHLVSTFLSALNS 266
Db      253 KYTRMWSIVAVAFIFCWLPPYIFNVSSVSVAISPTPAL--KGMFDEV---VILTYANSC 306
QY      267 ANPIIYFVFGSPFRQNRQNLKVLQAL 295
Db      307 ANPIIYAFISDNKSKSFQNVLCIVKVSAGADGERSD 327

```

## RESULT 12

A53752

interleukin-8 receptor (clone 5B1a) - rabbit

C:Species: Oryctolagus cuniculus (domestic rabbit)

C:Date: 06-Jan-1995 #sequence\_revision 06-Jan-1995 #text\_change 09-Jul-2004

C:Accession: A53752

```

R:Prado, G.N.; Thomas, K.M.; Suzuki, H.; LaRosa, G.J.; Wilkinson, N.; Folco, E.; Navarro,
J. Biol. Chem. 269, 12391-12394, 1994
A:Title: Molecular characterization of a novel rabbit interleukin-8 receptor isoform.
A:Reference number: A53752; MUID:94230294; PMID:8175642
A:Accession: A53752
A:Status: preliminary
A:Molecule type: mRNA
A:Residues: 1-358 <PRA>
A:Cross-references: UNIPROT:P35344; UNIPARC:UP1000012D4F4; GB:L24445; NID:9437661; PIDN:J
C:Superfamily: vertebrate rhodopsin
C:Keywords: G protein-coupled receptor; transmembrane protein

```

```

Query Match      12.8%; Score 216.5; DB 2; Length 358;
Best Local Similarity 26.1%; Pred. No. 1.7e-10;
Matches 81; Conservative 53; Mismatches 105; Indels 71; Gaps 13;

```

```

QY      19  EEPYCNQTLSTFGULCIIS-----LVALTGNA-VYLMILGGRMRNAVSIYINLVAN 72
Db      33  DSAPCRSBSLETSYVLLITVILVFLSLGNSLVMLVILYRSSTCSVTVDVTLNLAID 92
QY      73  FLFSGHIIISPLPL-----INIRHPISKILSPVWTFPYFGLSLMLSAISTERCSI 124
Db      93  LIFA-----TLPIWASKHGWTFGTPLCKVSLVKEVNFYSGILLACISVDRYLA 146
QY      125  LMPIWYHCR---PRYLSVVCVLLMALSLRSLIEMWFCDPLFSGANSVWC-ETSDPI 179
Db      147  V-----HARTRMIOKHLVKEFICLSWGVSLILSPILFLFRALPPPNSSPVCYEDMGS 201
QY      180  TIANLVFLCV--LCGSSLVLLVRILC-----GSRKMP/LRLVYTIITLVV 224
Db      202  TAKMRVNLILPOTGFILPLVLMFCVFTLRLTFOAHMGKH---RAMRVIAVAVLI 257
QY      225  FLICGSPFGIOWALFSRHLDMKVLFCVHL-----VSIPLSALNSANPI 270
Db      258  FLICWLPYVL-----VILTITMKRTHVIOETCERANDIDALDATEILGLSLCNP 310
QY      271  IYFVWG-SFR 279
Db      311  IYAFIQKFR 320

```

## RESULT 13

A53611

interleukin-8 receptor type B - human

C:Species: Homo sapiens (man)

C:Date: 07-Oct-1994 #sequence\_revision 12-Apr-1996 #text\_change 09-Jul-2004

C:Accession: I37898; I38712; A53611; A39446

R:Ahuja, S.K.; Shetty, A.; Tiffany, H.L.; Murphy, P.M.

J. Biol. Chem. 269, 26381-26389, 1994

A:Title: Comparison of the genomic organization and promoter function for human interleu

A:Reference number: I37898; MUID:95014476; PMID:7929358

A:Accession: I37898

A:Status: preliminary

A:Molecule type: DNA

A:Residues: 1-360 &lt;RES&gt;

A:Cross-references: UNIPROT:P25025; UNIPARC:UP100004358A; EMBL:U11869; NID:9511801; PIDN:

A:Accession: I38712

A:Status: preliminary

A:Molecule type: mRNA

A:Residues: 1-15 &lt;RE2&gt;

A:Cross-references: UNIPARC:UP100000053D; EMBL:U11872; NID:9511808; PIDN:AAA64380.1; PI

14; PID:9511815; EMBL:U11876; NID:9511816; PID:9511817; EMBL:U11877; NID:9511818; PID:951

J. Biol. Chem. 269, 11065-11072, 1994

R:Sprenger, H.; Lloyd, A.R.; Laurence, L.L.; Bonner, T.I.; Kelvin, D.J.

A:Title: Structure, genomic organization, and expression of the human interleukin-8 recei

A:Reference number: A53611; MUID:94209273; PMID:7513557

A:Accession: A53611

A:Status: preliminary

A:Molecule type: DNA

A:Residues: 6-360 &lt;SPR&gt;

A:Cross-references: UNIPARC:UP100000746D6; GB:M99412; GB:L19593

R:Murphy, P.M.; Tiffany, H.L.

Science 253, 1280-1283, 1991

A:Title: Cloning of complementary DNA encoding a functional human interleukin-8 receptor  
A:Accession number: A39446; MUID:91368200; PMID:1891716  
A:Status: preliminary; nucleic acid sequence not shown  
A:Molecule type: mRNA  
A:Residues: 6-360 <MUR>  
A:Cross-references: UNIPARC:UPI00000746D6; GB:M73969  
C:Comment: This receptor, unlike IL8RA, binds several peptides besides interleukin-8, in C:Genetics:  
A:Gene: GDB:IL8RB; IL8RA  
A:Cross-references: GDB:1127868; OMIM:146928  
A:Map position: 2q35-2q35  
C:Superfamily: vertebrate rhodopsin  
C:Keywords: G protein-coupled receptor; transmembrane protein

Query Match 12.7%; Score 215.5; DB 2; Length 360;  
Best Local Similarity 26.3%; Pred. No. 2e-10;  
Matches 81; Conservative 55; Mismatches 105; Indels 67; Gaps 13;

OY 19 EETPCYNQTLSTFG----LTCIISVALTGN-A-VLMGLGCRMRNAVSIYLNVAAAN 72  
| | :  
Db 35 DNAPCESESEINKYFVLIIVALLFLSLTGNSLMLVLISRYGRSVLDVLLNLALND 94  
| | :  
OY 73 FLF-----LSGHIFSPLEPLINIRPISKIUSPWMTFPYFIGSMASITERC 121  
| | :  
Db 95 LIFPALTLPIWAASKRVNGWIGFTFL-----CNVASLLEKNVNYSGILLACISVDXY 145  
| | :  
OY 122 LSLIMEIWHYCR---PRYSVVCVLLMALSLSLILEWMFCDFLPSGANSWC-ERS 176  
| | :  
Db 146 LAIV-----HATRTLPKRIYVKRICLSIWGLSLLALPVLLFRRTVISNNVSPACYEDM 200  
| | :  
OY 177 DFTIAMVLFVCV--LCGSLLVLLVRILC-GSRMPPLTRLYV-----TILLTVLVF 225  
| | :  
Db 201 GNNTAWMRMLRLIPQSFGEIVPLIMLCYGFTLRTEPKAMQGKHARMVIFAIVLLV 260  
| | :  
OY 226 LUCGLEPG-----IQWALPSRHLDMKVLFCHHLVSLFSLANSSANPLY 272  
| | :  
Db 261 LILCMELPNVLLADLTLMRTGYIOETCERRRHIDRALDATEI-----LGILHSCLNPLY 314  
| | :  
OY 273 PFWG-SFR 279  
| | : : ||  
Db 315 APTGQKR 322

RESULT 14  
157940  
somatostatin receptor 5 - rat  
N:Alternate names: somatotropin release-inhibiting factor subtype 28 receptor  
N:Species: Rattus norvegicus (Norway rat)  
C:Date: 02-Aug-1996 #sequence revision 02-Aug-1996 #text\_change 09-Jul-2004  
C:Accession: I57940; I57949; S39244  
R.O'Carroll, A.M.; Lolait, S.J.; Konig, M.; Mahan, L.C.  
Mol. Pharmacol. 42, 939-946, 1992  
A:Title: Molecular cloning and expression of a pituitary somatostatin receptor with pred  
A:Reference number: I57940; MUID:93125499; PMID:1362243  
A:Accession: I57940  
A:Status: preliminary; translated from GB/EMBL/DDBJ  
A:Molecule type: mRNA  
A:Residues: 1-363 <OCAL>  
A:Cross-references: UNIPROT:P30938; UNIPARC:UPI0000135FFB; GB:L04535; NID:g409238; PIDN  
R.O'Carroll, A.M.; Lolait, S.J.; Konig, M.; Mahan, L.C.  
Mol. Pharmacol. 44, 1278, 1993  
A:Title: Molecular cloning and expression of a pituitary somatostatin receptor with pref  
A:Reference number: I57949; MUID:94088493; PMID:8264565  
A:Accession: I57949  
A:Status: preliminary; translated from GB/EMBL/DDBJ  
A:Molecule type: mRNA  
A:Residues: 341-363 <OCA2>  
A:Cross-references: UNIPARC:UPI00000004EB; GB:S67370; NID:g455947; PIDN:AAB29371.1; PID  
A:Experimental source: pituitary  
A:Penetta, R.; Greenwood, M.; Patel, Y.C.  
submitted to the EMBL Data Library, August 1993  
A:Description: Correction of the nucleotide and amino acid sequence of the rat somato-

A:Reference number: S39244  
A:Accession: S39244  
A:Molecule type: mRNA  
A:Residues: 309-363 <PEEN>  
A:Cross-references: UNIPARC:UPI00001707D8; EMBL:X74828; NID:g433911; PID:CAA52825.1; PIR:  
C:Genetics:  
S:Gene: STR5  
C:Superfamily: vertebrate rhodopsin

Query Match	12.7%	Score 215.5;	DB 2;	Length 363;
Best Local Similarity	24.5%;	Pred. No. 2.1e-10;	Mismatches 16;	Indels 83; Gaps 17;
Matches	89;	Conservative 66;	Mismatches 126;	Indels 83; Gaps 17;

QY 21 TPCVQTLSFTG-----LTCTISLVLTGNNAVLM-LTGRMR 57  
| | :  
DB 9 TPWMASAASSGNHMSLVGSAPMGARAVLPVLTLVCTGLSGNTLVTVLRHAKM 68  
58 RNAVSIIYLNLVAANPLFLSGHIIFSPPLINRHP-----SKLSPMTFP---VF 107  
| :  
DB 69 KVTIVYIINLVADVLFMLG-----LPFLATQNVAVSYPFGSFELCRVMTLDGINOF 122  
108 IGLSMIASTERCLSIWPI----WYGRPRPYLSVNCVLLMALSLRSLEMMFCDF 163  
123 TSIFCLMWSDVRILAVHPLRSAR---RRPR-VAKMASAAVWFSLMSLPILVADV 178  
QY 164 L-FEGANSVCETSDFTITAMVFLCY-----VLCGSSLVLVRLICGRKM---- 209  
179 QEGWGTCNLSWEPEPGLMGAAFIITYTSVGVGFPGPLLVIICLYILLIVKVAAGKRVGSSR 238  
QY 210 -----PLTRLVVTLLTVLVFLFGLPGIGWALPSRIHLDMKVLFCHHLVISPLSAL 263  
229 RRRSEPKTRMVVV--VLFVFGCVLPFFIYNIVALFLLBEPSPSAGIFYPVULSYA 295  
QY 264 NSSANPIYFFFG-SFRQRONRQLVLQR--ALODT----BEVDGG--GMVPOETL 313  
296 NSCANPLTXGLFSNDNRQSGFRK---VLCIRRGVGMEDADAIEPRDPKSGRPATLPTRSSC 352  
DB 314 ELSG 317  
| :  
DB 353 FANG 356

RESULT 15  
B42009 FMLP-related receptor 1 - human  
N:Alternate names: FMLP receptor homolog FPR2; formyl peptide receptor like-1; probable C  
C:Species: Homo sapiens (man)  
C>Date: 30-Sep-1993 #sequence revision 14-Jul-1995 #next change 09-Jul-2004  
C:Accession: B42009; JCI1258; JQ1521; A42492; I54751; S21581  
R:Bao, L.; Gerard, N.P.; Bddy Jr., R.L.; Shows, T.B.; Gerard, C.  
Genomics 13, 437-440, 1992  
A>Title: Mapping of genes for the human C5a receptor (C5AR), human FMLP receptor (FPR), &  
A:Reference number: A42009; MUID:92307681; PMID:1612600  
A:Accession: B42009  
A>Status: nucleic acid sequence not shown  
A:Molecule type: DNA  
A:Residues: 1-263,'A','265-338','C','340-351<BAO>  
A:Cross-references: UNIPARC:UPI00001778D8; GB:M76672  
A>Note: authors translated the codons GTG for residue 15 as Glu, TCT for residue 19 as Thr  
R:Peretz, H.D.; Holmes, R.; Kelly, E.; McClarty, J.; Andrews, W.H.  
Gene 118, 303-304, 1992  
A>Title: Cloning of a cDNA encoding a receptor related to the formyl peptide receptor of  
A:Reference number: JCI1258; MUID:92380523; PMID:1511907  
A:Accession: JCI1258  
A>Status: nucleic acid sequence not shown  
A:Molecule type: mRNA  
A:Residues: 1-351<PER>  
A:Cross-references: UNIPARC:UPI0000012D0; EMBL:X63819; NID:g31460; PID:g31461  
A:Experimental source: bone marrow mRNA  
R:Aye, R.D.; Cavanagh, S.L.; Quehenberger, O.; Prossnitz, E.R.; Cochran, C.G.  
Biochem. Biophys. Res. Commun. 184, 582-589, 1992  
A>Title: Isolation of a cDNA that encodes a novel granulocyte N-formyl peptide receptor.  
A:Reference number: JQ1521; MUID:92246937; PMID:1374236

Job time : 44 secs

A:Accession: J01521  
A:Molecule type: mRNA  
A:Residues: 1-351 <YE2>  
A:Cross-references: UNIPARC:UPI00000012D0; GB:M88107; NID:g189862; PID:g189863  
A:Experimental source: granulocytes  
A:Note: formyl peptide-stimulated calcium mobilization comparable to that of the formyl  
Rimurphy, F.M.; Ozcelik, T.; Kenney, R.T.; Tiffany, H.L.; McDermott, D.; Francke, U.  
J. Biol. Chem. 267, 7637-7643, 1992  
A:Title: A structural homologue of the N-formyl peptide receptor. Characterization and c  
A:Reference number: A42492; MUID:92218423; PMID:1373334  
A:Accession: A42492  
A:Molecule type: mRNA  
A:Residues: 1-351 <MUR>  
A:Cross-references: UNIPARC:UPI00000012D0; GB:M84562; NID:g182741; PIDN:AAA52473.1; PID:  
A:Note: sequence extracted from NCBI backbone (NCBIN:94159, NCBI:94160)  
Int. Immunol. 5, 1239-1249, 1993  
Int. Immunol. 5, 1239-1249, 1993  
A:Title: Molecular cloning of cDNAs encoding a LD78 receptor and putative leukocyte chem  
A:Reference number: I54751; MUID:94092629; PMID:7505609  
A:Accession: I54751  
A:Status: preliminary; translated from GB/EMBL/DBJ  
A:Molecule type: mRNA  
A:Residues: 1-351 <RES>  
A:Cross-references: UNIPARC:UPI00000012D0; GB:D10922; NID:g219864; PIDN:BA01720.1; PID:  
C:Comment: This G-protein coupled receptor, homologous to the N-formyl peptide receptor  
differentiated myeloid cells and is probably a chemotactic receptor for some other ligand  
C:Genetics:  
A:Gene: GDB:PPRL1  
A:Cross-references: GDB:127554; OMIM:136538  
A:Map position: 19q13.3-19q13.4  
A:Introns: #status absent  
C:Superfamily: vertebrate rhodopsin  
C:Keywords: chemotaxis; G protein-coupled receptor; glycoprotein; transmembrane protein  
F:27-53/Domain: transmembrane #status predicted <TM1>  
F:59-83/Domain: transmembrane #status predicted <TM2>  
F:100-121/Domain: transmembrane #status predicted <TM3>  
F:145-169/Domain: transmembrane #status predicted <TM4>  
F:206-226/Domain: transmembrane #status predicted <TM5>  
F:242-266/Domain: transmembrane #status predicted <TM6>  
F:282-307/Domain: transmembrane #status predicted <TM7>  
F:4/Binding site: carbohydrate (asn) (covalent) #status predicted  
F:98-176/Diulfide bonds: #status predicted

Query Match 12.7%; Score 214; DB 2; Length 351;  
Best Local Similarity 25.6%; Pred. No. 2.7e-10;  
Matches 88; Conservative 59; Mismatches 115; Indels 82; Gaps 18;

QY 13 TPINGREETPCYNQTSFTGLCTIISLVL-----TGNAVTMLLCRMRRNAVSTY 64  
DB 7 TPLNEEYEVVS--YESAGYTVLR-IIPLVVLGVTFVGLVNGGLVIVWAGFRMRTVTYIC 63  
QY 65 IINLVANLFLSGHIFSPPLINL-----RHP-----ISKILSPVMTFPFYIGLSMLS 114  
DB 64 YINLALADSSFT-----ATLPFLIVSAMGEKWPFGWFLCKLIHIVDINLFGSVFLIG 117  
QY 115 AISTERCLSILPPIWYHCRPRYLSWCVLMLALSISLEMP-----CD 162  
DB 118 FIALDRICIVLHPWAQNHRYSLAKKIVGPMILALVITLVPFLFTVTITIPNGDYCT 177  
QY 163 FLFSGANSVWCESTD--FTITAMLVFLCV--LCGSSLVLLVRLC----- 204  
DB 178 FNFAS---WGSTPEERLKVAILMTLTARGIIRFVIGFSLPMSIVAICYGLIAKIKKGM 233  
QY 205 --GSRKMPILRLVITLLVLY--FLCGLPFGICQALFSRIHLDKVLFCVHLYSIF- 259  
DB 234 IKSSR--PLR-----VLTAAVASPFTICWFPFOLV-ALLGTWMLKEMLFYGRYKXIIDLIV 284  
QY 260 -----LSALNSANPIIYFVVG-SFROQRONRLKVLORALOD 297  
DB 285 NPTSSLAFPNISCLNPLVYFVGODFRRL-IHSLPTSLRALSE 327

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## Protein Sequence Searches - February 2005

All of the sequence databases on ABSS have recently been updated.

- Please note that the curators of the UniProt database have purged some temporary accession numbers from the most recent version of UniProt. These sequences have been assigned new permanent accession numbers. The new UniProt record may not contain the previous temporary accession number.
- If you encounter an accession number from an older search run against UniProt (results file extension **.rup**) that can no longer be found in the database, the permanent record with the new accession number can be found by searching the old accession number in the UniProt Protein Archive database (UniPARC) at:

<http://www.pir.uniprot.org/database/archive.shtml>

If you have any questions regarding this information or your results, please contact any STIC searcher.

**When submitting sequence search results for scanning into IFW, please include a copy of this attachment to assist any future Examiners or members of the public who may encounter UniProt temporary accession numbers.**

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GenCore version 5.1.7  
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OM protein - protein search, using sw model

Run on: February 3, 2006, 20:23:48 ; Search time 251 Seconds

(without alignments)  
905.100 Million cell updates/sec

Title: US-10-747-702-3

Perfect score: 1691

Sequence: 1 MDPPIPVLTGKLTPIINGREE.....EGGWLPORTLELSGSKLEQ 322

Scoring table: BLOSUM62

Searched: 2166443 seqs, 705528306 residues

Total number of hits satisfying chosen parameters: 2166443

Minimum DB seq length: 0

Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

## SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1642	97.1	322	1 MRGX3_HUMAN	Q961B0 homo sapien
2	1573	93.0	322	1 SNSR2_HUMAN	Q81d60 homo sapien
3	1401	82.9	322	1 SNSR3_HUMAN	Q81dd9 homo sapien
4	1373	81.2	322	1 MRGX1_HUMAN	Q961B2 homo sapien
5	1370	81.0	322	1 SNSR5_HUMAN	Q81dd7 homo sapien
6	1366	80.8	322	1 MRGX4_HUMAN	Q4V912 homo sapien
7	1334	78.9	322	2 Q5U9E0_MACPA	Q961A9 homo sapien
8	1235	72.4	322	2 Q5U9D6_MACPA	Q5U9D6 macaca fasc
9	998.5	59.0	330	2 Q4QXU4_TRAFR	Q4QXU4 trachypithe
10	998.5	59.0	330	2 Q4QXU2_PYGBI	Q4QXU2 pygathrix b
11	980.5	58.0	330	1 MRGX2_MACPA	Q5U9D9 macaca fasc
12	980.5	58.0	329	2 Q4QXU5_MACPU	Q4QXU5 macaca mula
13	978.5	57.9	330	1 MRGX2_HUMAN	Q961B1 homo sapien
14	978.5	57.9	330	2 Q4QXW4_HUMAN	Q4QXW4 homo sapien
15	978.5	57.9	330	2 Q4QXK2_HUMAN	Q4QXK2 homo sapien
16	973.5	57.6	330	2 Q4QXK4_HUMAN	Q4QXK4 homo sapien
17	971.5	57.5	330	2 Q4QXK7_HUMAN	Q4QXK7 homo sapien
18	968.5	57.3	330	2 Q4QXK9_HUMAN	Q4QXK9 homo sapien
19	966.5	57.2	330	2 Q4QXK6_HUMAN	Q4QXK6 homo sapien
20	966.5	57.2	330	2 Q4QXK3_HUMAN	Q4QXK3 homo sapien
21	964.5	57.0	330	2 Q4QXK0_HUMAN	Q4QXK0 homo sapien
22	955.5	56.5	330	2 Q4QXU6_PONY	Q4QXU6 pongo pygma
23	945	55.9	329	2 Q4QXU6_PANTRM	Q4QXU6 bonopithecu
24	940	55.6	329	2 Q4QXU9_PANTRM	Q4QXU9 pan troglod
25	929	54.9	329	2 Q4QXU0_PANTRM	Q4QXU0 gorilla gor
26	815.5	48.0	323	2 Q7TN42_RAT	Q7TN42 rattus norv
27	812.5	48.0	323	1 SNSR1_FAT	Q81g91 rattus norv
28	786	46.5	322	2 Q8CIP3_MOUSE	Q8CIP3 mus musculu
29	779	46.1	304	1 MRGA_RAT	Q7TN49 rattus norv
30	774	45.8	331	2 Q91VB7_RAT	Q91VB7 rattus norv

32	773	45.7	331	2 Q5FVU1_RAT	Q5FVU1 rattus norv
33	765	45.2	304	1 MRGA1_MOUSE	Q91W45 mus musculu
34	749	44.3	338	2 Q8CDY4_MOUSE	Q8CDY4 mus musculu
35	749	44.3	338	2 Q91ZC2_MOUSE	Q91ZC2 mus musculu
36	744	44.0	394	2 Q7TN48_RAT	Q7TN48 rattus norv
37	730	43.2	302	1 MRGA3_MOUSE	Q91W43 mus musculu
38	729.5	43.1	301	1 MRGA6_MOUSE	Q91ZC6 mus musculu
39	721.5	42.7	305	1 MRGA7_MOUSE	Q91ZC5 mus musculu
40	707	41.8	321	2 Q91ZC0_MOUSE	Q91ZC0 mus musculu
41	704	41.6	338	2 Q91ZC3_MOUSE	Q91ZC3 mus musculu
42	685.5	40.5	313	1 MRGA4_MOUSE	Q91W42 mus musculu
43	680	40.2	304	1 MRGA5_MOUSE	Q91ZC7 mus musculu
44	677.5	40.1	323	2 Q7TN45_RAT	Q7TN45 rattus norv
45	675.5	39.9	305	1 MRGA2_MOUSE	Q91W44 mus musculu

## ALIGNMENTS

RESULT 1  
MRGX3 HUMAN STANDARD; PRT; 322 AA.  
ID MRGX3 HUMAN STANDARD; PRT; 322 AA.  
AC Q961B0; Q81DE1.  
DT 25-OCT-2004 (Rel. 45, Created)  
DT 25-OCT-2004 (Rel. 45, Last sequence update)  
DT 13-SEP-2005 (Rel. 48, Last annotation update)  
DE Mas-related G-protein coupled receptor member X3 (Sensory neuron-specific G-protein coupled receptor 1).  
GN Name=MRGPRX3; Synonyms=MRGX3, SNSR1;  
OS Homo sapiens (Human).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homiidae; Homo.  
NCBI\_TaxID=9606;  
RN [1]  
RP NUCLEOTIDE SEQUENCE.  
RX MEDLINE=21435808; PubMed=11551509; DOI=10.1016/S0092-8674(01)00483-4;  
RA Dong X., Han S.-K., Zylka M.J., Simon M.I., Anderson D.J.;  
RT "A diverse family of GPCRs expressed in specific subsets of nociceptive sensory neurons."  
RL Cell 106:619-632(2001).  
RN [2]  
RP NUCLEOTIDE SEQUENCE, VARIANT ASN-169, AND TISSUE SPECIFICITY.  
RX MEDLINE=21853733; PubMed=11850634; DOI=10.1038/nm815;  
RA Zhang P.M.C., Grazzini E., Groblewski T., O'Donnell D., Roy M.-O.,  
RA lemo P., Hoffert C., Cao J., Schmidt R., Pelletier M., Labarre M.,  
RA Gosselin M., Fortin Y., Banville D., Shen S., Stroem P., Payza K.,  
RA Dray A., Walker P., Ahmad S.;  
RT "Proenkephalin A gene products activate a new family of sensory neuron-specific GPCRs."  
RL Nat. Neurosci. 5:201-209(2002).  
RN [3]  
RP NUCLEOTIDE SEQUENCE [LARGE SCALE MRNA].  
RC TISSUE=Testis;  
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;  
RA Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,  
RA Klausner R.D., Collins F.S., Wagner K.H., Shenmen C.M., Schler G.D.,  
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,  
RA Hopkins R.F., Jordan K., Moore T., Wax S.I., Wang J., Hsten P.,  
RA Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,  
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,  
RA Brownstein M.J., Udell T.B., Toshiyuki S., Carninci P., Panghe S.J.,  
RA Baha S.S., McSwan P.J., McKernan K.U., Malek J.A., Gunaratne P.H.,  
RA Bosak S.A., McSwan P.J., McKernan K.U., Malek J.A., Gunaratne P.H.,  
RA Villalón D.K., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,  
RA Richardson S.K., Munz D.M., Sodergren E.J., Lu X., Gibbs R.A.,  
RA Fahey J., Helton E., Ketterman M., Madan A., Rodriguez S., Sanchez A.,  
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,  
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,  
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,  
RA Butterfield Y.S.N., Krzywicki M.I., Skalska U., Smalins D.E.,  
RA Scherch A., Schein J.E., Jones S.J.M., Marra M.A.;  
RT "Generation and initial analysis of more than 15,000 full-length human

RT and mouse cDNA sequences.";  
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).  
 CC -1- FUNCTION: Orphan receptor. Probably involved in the function of  
 CC nociceptive neurons. May regulate nociceptor function and/or  
 CC development, including the sensation or modulation of pain.  
 CC Potently activated by enkephalins (By similarity).  
 CC -1- SUBCELLULAR LOCATION: Integral membrane protein.  
 CC -1- TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal  
 CC root and trigeminal sensory neurons.  
 CC -1- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.  
 CC Mas subfamily.  
 -----  
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration  
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
 CC the European Bioinformatics Institute. There are no restrictions on its  
 CC use as long as its content is in no way modified and this statement is not  
 CC removed.  
 -----  
 CC EMBL: AY042215; AAK91806.1; -; Genomic DNA.  
 CC EMBL: AF474987; AAL86878.2; -; Genomic DNA.  
 CC EMBL: BC67292; AAH67292.1; -; mRNA.  
 CC Ensembl: ENSG00000179826; Homo sapiens.  
 CC HGNC: HGNC:17980; MRCGRX3.  
 CC MIM: 607229; -.  
 CC InterPro: IPR000276; GPCR\_Rhodopsin.  
 CC Pfam: PF00001; 7tm\_1; 1.  
 CC PRINTS: PR000237; GPCRHOPOPSN.  
 CC PROSITE: PS00237; G\_PROTEIN\_RECP\_F1\_1; 1.  
 CC PROSITE: PS0262; G\_PROTEIN\_RECP\_F1\_2; 1.  
 CC G-protein coupled receptor; Polymorphism; Receptor; Transducer;  
 KW Transmembrane.  
 FT TOPO\_DOM 1 31 Extracellular (Potential).  
 FT TRANSMEM 32 52 1 (Potential).  
 FT TOPO\_DOM 53 60 Cytoplasmic (Potential).  
 FT TRANSMEM 61 81 2 (Potential).  
 FT TOPO\_DOM 82 96 Extracellular (Potential).  
 FT TRANSMEM 97 117 3 (Potential).  
 FT TOPO\_DOM 118 140 Cytoplasmic (Potential).  
 FT TRANSMEM 141 161 4 (Potential).  
 FT TOPO\_DOM 162 177 Extracellular (Potential).  
 FT TRANSMEM 178 198 5 (Potential).  
 FT TOPO\_DOM 199 213 Cytoplasmic (Potential).  
 FT TRANSMEM 214 234 6 (Potential).  
 FT TOPO\_DOM 235 254 Extracellular (Potential).  
 FT TRANSMEM 255 275 7 (Potential).  
 FT TOPO\_DOM 276 322 Cytoplasmic (Potential).  
 FT VARIANT 169 169 D -> N (in dbSNP:4274188).  
 FT VARIANT 169 169 /FTID=VAR\_019434.  
 FT CONFLICT 3 3 S -> P (in Ref. 2).  
 FT CONFLICT 82 82 C -> R (in Ref. 3).  
 FT CONFLICT 307 307 W -> Q (in Ref. 3).  
 FT CONFLICT 319 319 R -> K (in Ref. 2).  
 FT CONFLICT 319 319 R -> K (in Ref. 2).  
 FT SEQUENCE 322 AA; 36484 MW; 253B1BEF0CB4EB74 CRC64;  
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 Query Match 97.1%; Score 1642; DB 1; Length 322;  
 Best local Similarity 97.2%; Pred. No. 1,1e-109;  
 Matches 313; Conservative 5; Mismatches 4; Indels 0; Gaps 0;  
 -----

QY 241 RIHLDMKVLFCVHLVSLFSLALNSGANDPIYFPGSGFRQRONRQNLKVLQRLADPPE 300  
 DB 241 RIHLDMKVLFCVHLVSLFSLALNSGANDPIYFPGSGFRQRONRQNLKVLQRLADPPE 300  
 QY 301 VDEGGWLPQETLELSGSKLEQ 322  
 DB 301 VDEGGWLPQETLELSGSKLEQ 322  
 -----  
 RESULT 2  
 SNR2\_HUMAN STANDARD; PRT; 322 AA.  
 ID SNR2\_HUMAN  
 AC Q8TDE0;  
 DT 25-OCT-2004 (Rel. 45, Created)  
 DT 25-OCT-2004 (Rel. 45, Last sequence update)  
 DT 10-MAY-2005 (Rel. 47, Last annotation update)  
 DE Sensory neuron-specific G-protein coupled receptor 2.  
 GN Name=SNR2;  
 OS Homo sapiens (Human).  
 OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homiidae;  
 OC Homo.  
 OC NCBI\_TaxID=9606;  
 RN [1]  
 RP NUCLEOTIDE SEQUENCE, AND TISSUE SPECIFICITY.  
 RX MEDLINE=21853733; PubMed=11850634; DOI=10.1038/mn815;  
 RA Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M., Labarre M.,  
 RA Gosselin M., Fortin Y., Banville D., Shen S., Stroem P., Paya K.,  
 RA Dray A., Walker P., Ahmad S.;  
 RT "Proenkephalin A gene products activate a new family of sensory  
 RT neuron-specific GPCRs.";  
 RL Nat. Neurosci. 5:201-209(2002).  
 CC -1- FUNCTION: Orphan receptor. Probably involved in the function of  
 CC nociceptive neurons. May regulate nociceptor function and/or  
 CC development, including the sensation or modulation of pain.  
 CC Potently activated by enkephalins (By similarity).  
 CC -1- SUBCELLULAR LOCATION: Integral membrane protein.  
 CC -1- TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal  
 CC root and trigeminal sensory neurons.  
 CC -1- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.  
 CC Mas subfamily.  
 -----  
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 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
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 CC use as long as its content is in no way modified and this statement is not  
 CC removed.  
 -----  
 CC EMBL: AF474988; AAL86879.2; -; Genomic DNA.  
 CC Ensembl: ENSG00000179826; Homo sapiens.  
 CC InterPro: IPR000276; GPCR\_Rhodopsin.  
 CC Pfam: PF00001; 7tm\_1; 1.  
 CC PRINTS: PR00237; GPCRHOPOPSN.  
 CC PROSITE: PS00237; G\_PROTEIN\_RECP\_F1\_1; 1.  
 CC PROSITE: PS0262; G\_PROTEIN\_RECP\_F1\_2; 1.  
 CC G-protein coupled receptor; Glycoprotein; Receptor; Transducer;  
 KW Transmembrane.  
 FT TOPO\_DOM 1 32 Extracellular (Potential).  
 FT TRANSMEM 33 53 1 (Potential).  
 FT TOPO\_DOM 54 60 Cytoplasmic (Potential).  
 FT TRANSMEM 61 81 2 (Potential).  
 FT TOPO\_DOM 82 96 Extracellular (Potential).  
 FT TRANSMEM 97 117 3 (Potential).  
 FT TOPO\_DOM 118 140 Cytoplasmic (Potential).  
 FT TRANSMEM 141 161 4 (Potential).  
 FT TOPO\_DOM 162 177 Extracellular (Potential).  
 FT TRANSMEM 178 198 5 (Potential).  
 FT TOPO\_DOM 199 213 Cytoplasmic (Potential).  
 FT TRANSMEM 214 234 6 (Potential).  
 FT TOPO\_DOM 235 254 Extracellular (Potential).  
 FT TRANSMEM 255 275 7 (Potential).  
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FT TOPO\_DOM 276 322 Cytoplasmic (Potential).  
 SQ CARBOHYD 89 89 N-linked (GlcNAc...) (Potential).  
 SC SEQUENCE 322 AA; 36595 MW; D8C24308EB34611B CRC64;

Query Match 93.0%; Score 1573; DB 1; Length 322;  
 Best Local Similarity 93.8%; Pred. No. 9.3e-105;  
 Matches 302; Conservative 9; Mismatches 11; Indels 0; Gaps 0;

QY 1 MDPTIVLGTGLTPINGREETPCYNQTLSTFTGLTCTISLVALTGNNAVTLMLGCRMRNA 60  
 DB 1 MDPTVVLGTGLTPINGREETPCYKQTLSTFTGLTCTISLVALTGNNAVTLMLGCRMRNA 60  
 QY 61 VSIYIINLVANFLFSGHIIISPLPLINIRHPIKSLSPVMTFPYFGLSMISAISTER 120  
 DB 61 VSIYIINLVANFLFSGHIIISPLPLINIRHPIKSLSPVMTFPYFGLSMISAISTER 120  
 QY 121 CLSILMPWYHCRPRYLSVVMCVLLMALSLRSILEMFCDFLFGSANSVWCETSDFIT 180  
 DB 121 CLSILMPWYHCRPRYLSVVMCVLLMALSLRSILEMFCDFLFGSANSVWCETSDFIT 180  
 QY 181 IANLVFLCVLLCGSSLVLLVLRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQNALFS 240  
 DB 181 IANLVFLCVLLCGSSLVLLVLRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQNALFS 240  
 QY 241 RIHLDMKVLFCVHVLVSIFLSALNSSANPLIYFVGSFRQORONMLKVLQRALDTPPE 300  
 DB 241 RIHLDMKVLFCVHVLVSIFLSALNSSANPLIYFVGSFRQORONMLKVLQRALDTPPE 300  
 QY 301 VDEGGMLPOETLETLSGSKLEQ 322  
 DB 301 VDEGGMLPOETLETLSGSKLEQ 322

## RESULT 3

SNR3\_HUMAN STANDARD; PRT; 322 AA.

AC Q8TDD9;  
 DT 25-OCT-2004 (Rel. 45, Created)  
 DT 25-OCT-2004 (Rel. 45, Last sequence update)  
 DT 10-MAY-2005 (Rel. 47, Last annotation update)  
 DE Sensory neuron-specific G-protein coupled receptor 3.  
 GN Name=SNR3;  
 OS Homo sapiens (Human).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homiidae;  
 OC Homo.  
 NCBI\_TaxID=9606;  
 RX NUCLEOTIDE SEQUENCE, AND TISSUE SPECIFICITY.  
 RA MEDLINE:21853733; PubMed:11850634; DOI=10.1038/nr15;  
 RA Lembo P.M.C., Grazzini E., Groblewski T., O'Donnell D., Roy M.-O.,  
 RA Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M., Labarre M.,  
 RA Gosselin M., Fortin Y., Banville D., Shen S., Stroem P., Payza K.,  
 RA Dray A., Walker P., Ahmad S.;  
 RT "Proenkephalin A gene products activate a new family of sensory  
 RT neuron-specific GPCRs."  
 RT Nat. Neurosci. 5:201-209(2002).  
 CC -|- FUNCTION: Orphan receptor. Probably involved in the function of  
 CC nociceptive neurons. May regulate nociceptor function and/or  
 CC development, including the sensation or modulation of pain.  
 CC Potentially activated by enkephalins including BAW2 (bovine adrenal  
 CC medulla peptide 22) and BAM (8-22). BAW2 is the most potent  
 CC compound and evoked a large and dose-dependent release of  
 CC intracellular calcium in stably transfected cells. G(alpha)q  
 CC proteins are involved in the calcium-signaling pathway.  
 CC -|- SUBCELLULAR LOCATION: Integral membrane protein.  
 CC -|- TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal  
 CC root and trigeminal sensory neurons.  
 CC -|- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.  
 CC Mas subfamily.

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 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -

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 CC use as long as its content is in no way modified and this statement is not  
 CC removed.

DR EMBL: AF474989; AAL8680.2; -; Genomic DNA.  
 DR Ensembl: ENSG00000170255; Homo sapiens.  
 DR InterPro: IPR000276; GPCR\_Rhodopsin.  
 DR Pfam: PF00001; 7tm\_1; 1.  
 DR PRINTS: PR00237; GPCRHHODOPSIN.  
 DR PROSITE: PS00237; G\_PROTEIN\_RECP\_F1\_1; 1.  
 DR PROSITE: PS02652; G\_PROTEIN\_RECP\_F1\_2; 1.  
 KW G-protein coupled receptor; Glycoprotein; Receptor; Transducer;  
 KW Transmembrane.  
 FT TOPO\_DOM 1 31 Extracellular (Potential).  
 FT TRANSMEM 32 52 1 (Potential).  
 FT TOPO\_DOM 53 67 Cytoplasmic (Potential).  
 FT TRANSMEM 68 87 2 (Potential).  
 FT TOPO\_DOM 89 96 Extracellular (Potential).  
 FT TRANSMEM 97 117 3 (Potential).  
 FT TOPO\_DOM 118 144 Cytoplasmic (Potential).  
 FT TRANSMEM 145 165 4 (Potential).  
 FT TOPO\_DOM 166 177 Extracellular (Potential).  
 FT TRANSMEM 178 198 5 (Potential).  
 FT TOPO\_DOM 199 221 Cytoplasmic (Potential).  
 FT TRANSMEM 222 242 6 (Potential).  
 FT TOPO\_DOM 243 254 Extracellular (Potential).  
 FT TRANSMEM 255 275 7 (Potential).  
 FT TOPO\_DOM 276 322 Cytoplasmic (Potential).  
 FT CARBOHYD 16 16 N-linked (GlcNAc...) (Potential).  
 SQ SEQUENCE 322 AA; 36287 MW; 4C43E33B52DCBF5 CRC64;

Query Match 82.9%; Score 1401; DB 1; Length 322;  
 Best Local Similarity 82.9%; Pred. No. 1.9e-92;  
 Matches 267; Conservative 22; Mismatches 33; Indels 0; Gaps 0;

QY 1 MDPTIVLGTGLTPINGREETPCYNQTLSTFTGLTCTISLVALTGNNAVTLMLGCRMRNA 60  
 DB 1 MDPTVLTDLTLPINGREETPCYKQTLSTFTGLTCTISLVALTGNNAVTLMLGCRMRNA 60  
 QY 61 VSIYIINLVANFLFSGHIIISPLPLINIRHPIKSLSPVMTFPYFGLSMISAISTER 120  
 DB 61 VSIYIINLVANFLFSGHIIISPLPLINIRHPIKSLSPVMTFPYFGLSMISAISTER 120  
 QY 121 CLSILMPWYHCRPRYLSVVMCVLLMALSLRSILEMFCDFLFGSANSVWCETSDFIT 180  
 DB 121 CLSILMPWYHCRPRYLSVVMCVLLMALSLRSILEMFCDFLFGSANSVWCETSDFIT 180  
 QY 181 IANLVFLCVLLCGSSLVLLVLRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQNALFS 240  
 DB 181 IANLVFLCVLLCGSSLVLLVLRILCGSRKMPLTRLYVTILLTVLVFLLCGLPFGIQNALFS 240  
 QY 241 RIHLDMKVLFCVHVLVSIFLSALNSSANPLIYFVGSFRQORONMLKVLQRALDTPPE 300  
 DB 241 RIHLDMKVLFCVHVLVSIFLSALNSSANPLIYFVGSFRQORONMLKVLQRALDTPPE 300  
 QY 301 VDEGGMLPOETLETLSGSKLEQ 322  
 DB 301 VDEGGMLPOETLETLSGSKLEQ 322

## RESULT 4

MRGX1\_HUMAN STANDARD; PRT; 322 AA.

AC Q96LB2; Q8TDD8;  
 DT 25-OCT-2004 (Rel. 45, Created)  
 DT 25-OCT-2004 (Rel. 45, Last sequence update)  
 DT 13-SEP-2005 (Rel. 48, Last annotation update)  
 DE Mas-related G-protein coupled receptor member X1 (Sensory neuron-  
 DE specific G-protein coupled receptor 4).  
 GN Name=MRGX1; Synonyms=MRGX1, SNR4;  
 OS Homo sapiens (Human).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homiidae;

OC Homo.  
 OX NCBI\_TaxID=9606;  
 RN NUCLEOTIDE SEQUENCE.  
 RX MEDLINE=21435808; PubMed=11551509; DOI=10.1016/S0092-8674(01)00483-4;  
 RA Dong X., Han S.-K., Zylka M.J., Simon M.I., Anderson D.J.;  
 RT "A diverse family of GPCRs expressed in specific subsets of nociceptive sensory neurons."  
 RL Cell 106:619-632(2001).  
 RN NUCLEOTIDE SEQUENCE, AND TISSUE SPECIFICITY.  
 RP MEDLINE=21853733; PubMed=11850634; DOI=10.1016/S0092-8674(01)00483-4;  
 RA Lembo P.M.C., Grazzini E., Groblewski T., O'Donnell D., Roy M.-O., Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M., Labarre M., Gosselin M., Fortin Y., Banville D., Shen S., Stroem P., Payza K., Dray A., Walker P., Ahmad S.;  
 RT "Proenkephalin A gene products activate a new family of sensory neuron-specific GPCRs."  
 RL Nat. Neurosci. 5:201-209(2002).  
 RN NUCLEOTIDE SEQUENCE.  
 RP MEDLINE=2040286; PubMed=12044878; DOI=10.1016/S0014-5793(02)02775-8;  
 RA Takeda S., Kadowaki S., Haga T., Takaue H., Mitaku S.;  
 RT "Identification of G protein-coupled receptor genes from the human genome sequence."  
 RL FEBS Lett. 520:97-101(2002).  
 RN NUCLEOTIDE SEQUENCE.  
 RP Suwa M., Sato T., Okouchi I., Arita M., Futami K., Matsumoto S., Tetsunari S., Aburatani H., Asai K., Akiyama Y.;  
 RT "Genome-wide discovery and analysis of human seven transmembrane helix receptor genes."  
 RL Submitted (JUL-2001) to the EMBL/GenBank/DBJ databases.  
 CC -1- FUNCTION: Orphan receptor. Probably involved in the function of nociceptive neurons. May regulate nociceptor function and/or development, including the sensation or modulation of pain. Potentially activated by enkephalins including BAM22 (bovine adrenal medulla peptide 22) and BAM (8-22). BAM22 is the most potent compound and evoked a large and dose-dependent release of intracellular calcium in stably transfected cells. G(alpha)q proteins are involved in the calcium-signaling pathway.  
 CC -1- SUBCELLULAR LOCATION: Integral membrane protein.  
 CC -1- TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal root and trigeminal sensory neurons.  
 CC -1- SIMILARITY: Belongs to the G-protein coupled receptor 1 family. Mae subfamily.  
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not removed.  
 CC EMBL: AY042213; AAK91804.1; -; Genomic DNA.  
 CC EMBL: AF474990; AAL86881.1; -; Genomic DNA.  
 CC EMBL: AB083428; BAB89341.1; -; Genomic DNA.  
 CC EMBL: AB063846; BAC06064.1; -; Genomic DNA.  
 CC Ensemble1; ENSG00000170255; Homo sapiens.  
 CC DR HGNC: HGNC:17962; MRGPRX1.  
 CC DR MIM: 607227; -.  
 CC DR InterPro: IPR000276; GPCR\_Rhodopn.  
 CC DR Pfam: PF00001; 7tm\_1, 1.  
 CC DR PRINTS: PR00237; GPCRHDOPSN.  
 CC DR PROSITE: PS00237; G\_PROTEIN\_RECP\_F1\_1; 1.  
 CC DR PROSITE: PS0262; G\_PROTEIN\_RECP\_F2\_1; 1.  
 CC KW G-protein coupled receptor; Glycoprotein; Polymorphism; Receptor; Transducer; Transmembrane.  
 CC FT TOPO\_DOM 1 31 Extracellular (Potential).  
 CC FT TRANSMEM 32 52 1 (Potential).  
 CC FT TOPO\_DOM 53 67 Cytoplasmic (Potential).  
 CC FT TRANSMEM 68 88 2 (Potential).  
 CC FT TOPO\_DOM 89 96 Extracellular (Potential).  
 CC FT TRANSMEM 97 117 3 (Potential).

FT TOPO\_DOM 118 144 Cytoplasmic (Potential).  
 FT TRANSMEM 145 165 4 (Potential).  
 FT TOPO\_DOM 166 177 Extracellular (Potential).  
 FT TRANSMEM 178 198 5 (Potential).  
 FT TOPO\_DOM 199 221 Cytoplasmic (Potential).  
 FT TRANSMEM 222 242 6 (Potential).  
 FT TOPO\_DOM 243 254 Extracellular (Potential).  
 FT TRANSMEM 255 275 7 (Potential).  
 FT TOPO\_DOM 276 322 Cytoplasmic (Potential).  
 FT CARBOHYD 16 16 N-linked (GlcNAc...) (Potential).  
 FT VARIANT 36 36 /FTID=VAR\_019432.  
 FT CONFLICT 5 5 1 -> V (1n Ref. 2).  
 FT SQ SEQUENCE 322 AA; 36250 MW; C7F3A9F4418B8AD1 CRC64;  
 Query Match  
 Best Local Similarity 81.2%; Score 1373; DB 1; Length 322;  
 Matches 264; Conservative 22; Mismatches 36; Indels 0; Gaps 0;  
 QY 1 MDPTIPVLGTSLTPNGREETPCYNQTSFTGLTCTISVALTGNVVMILGCRMRNA 60  
 DB 1 MPTISTLDTELTPNGTEETLCYQQTSLTVLTCTIVSLVGLTGNVVMILGCRMRNA 60  
 QY 61 VSIYIINLVANFLPSGHIITSPPLNIRPISKILSPVWTFPFITGLSMLSAISTER 120  
 DB 61 PSYIINLVANFLPSGHIITSPPLNIRPISKILSPVWTFPFITGLSMLSAISTER 120  
 QY 121 CISTLPIWYHGRPRYISVWCVLLMALSLRSILEMFCDFLFGSANSVWCETSDFT 180  
 DB 121 CISTLPIWYHGRPRYISVWCVLLMALSLRSILEMFCDFLFGSANSVWCETSDFT 180  
 QY 181 IMLVFLCVLGGSSLVLRITLCSRRKMPRLRYTTLITLVLPFLCGLPFGIQNALFS 240  
 DB 181 VMLVFLCVLGGSSLVLRITLCSRRKMPRLRYTTLITLVLPFLCGLPFGIQNALFS 240  
 QY 241 RHLDMKVLFCVHLVSTFLSALNSANPIYFPFGSFRQRRQNLKVLQRALODTP 300  
 DB 241 WHVDESVLFCVHLVSTFLSALNSANPIYFPFGSFRQRRQNLKVLQRALODTP 300  
 QY 301 VDEGGMLPQETLELGSRLQ 322  
 DB 301 VDEGGMLPQETLELGSRLQ 322  
 RESULT 5  
 SNRS5 HUMAN STANDARD; PRT; 322 AA.  
 ID SNRS5\_HUMAN  
 AC G8TDJ7;  
 DT 25-OCT-2004 (Rel. 45, Created)  
 DT 25-OCT-2004 (Rel. 45, Last sequence update)  
 DT 10-MAY-2005 (Rel. 47, Last annotation update)  
 DE Sensory neuron-specific G-protein coupled receptor 5.  
 GN Name=SNRS5;  
 OS Homo sapiens (Human).  
 OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homiidae;  
 OC Homo.  
 CC NCBI\_TaxID=9606;  
 RN NUCLEOTIDE SEQUENCE, AND TISSUE SPECIFICITY.  
 RP MEDLINE=21853733; PubMed=11850634; DOI=10.1016/S0092-8674(01)00483-4;  
 RA Lembo P.M.C., Grazzini E., Groblewski T., O'Donnell D., Roy M.-O., Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M., Labarre M., Gosselin M., Fortin Y., Banville D., Shen S., Stroem P., Payza K., Dray A., Walker P., Ahmad S.;  
 RT "Proenkephalin A gene products activate a new family of sensory neuron-specific GPCRs."  
 RL Nat. Neurosci. 5:201-209(2002).  
 CC -1- FUNCTION: Orphan receptor. Probably involved in the function of nociceptive neurons. May regulate nociceptor function and/or development, including the sensation or modulation of pain. Potentially activated by enkephalins (By similarity).  
 CC -1- SUBCELLULAR LOCATION: Integral membrane protein.

```
CC -1- TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal
CC root and trigeminal sensory neurons.
CC -1- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.
CC Mas subfamily.
CC -----
CC This Swiss-Prot entry is copyright. It is produced through a collaboration
CC between the Swiss Institute of Bioinformatics and the EMBL outstation -
CC the European Bioinformatics Institute. There are no restrictions on its
CC use as long as its content is in no way modified and this statement is not
CC removed.
CC -----
CC EMBL; AF474991; AAL68682.1; -, Genomic_DNA.
CC Ensemble; ENSG00000179817; Homo sapiens.
CC InterPro; IPR000276; GPCR_Rhodopsn.
CC Pfam; PF00001; 7tm 1; 1.
CC PRINTS; PR00237; GPCR_RHODOPSIN.
CC PROSITE; PS00237; G_PROTEIN_REC_P1_1; 1.
CC PROSITE; PS00262; G_PROTEIN_REC_P1_2; 1.
CC G-protein coupled receptor; Glycoprotein; Receptor; Transducer;
CC Transmembrane.
CC -----
CC FT TOPO_DOM 1 31 Extracellular (Potential).
CC FT TRANSFM 32 52 1 (Potential).
CC FT TOPO_DOM 53 60 Cytoplasmic (Potential).
CC FT TRANSFM 61 81 2 (Potential).
CC FT TOPO_DOM 82 96 Extracellular (Potential).
CC FT TRANSFM 97 117 3 (Potential).
CC FT TOPO_DOM 118 137 Cytoplasmic (Potential).
CC FT TRANSFM 138 158 4 (Potential).
CC FT TOPO_DOM 159 177 Extracellular (Potential).
CC FT TRANSFM 178 198 5 (Potential).
CC FT TOPO_DOM 199 218 Cytoplasmic (Potential).
CC FT TRANSFM 219 239 6 (Potential).
CC FT TOPO_DOM 240 254 Extracellular (Potential).
CC FT TRANSFM 255 275 Cytoplasmic (Potential).
CC FT TOPO_DOM 276 322 7 (Potential).
CC FT CARBOHYD 89 89 N-linked (GlcNAc...) (Potential).
CC FT SEQUENCE 322 AA; 36424 MW; 3D6FFB48DDP090 CRC64;
SQ
Query Match 81.0%; Score 1370; DB 1; Length 322;
Best Local Similarity 83.1%; Pred. No. 3.2e-90;
Matches 266; Conservative 21; Mismatches 33; Indels 0; Gaps 0;
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DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
DR G-protein-coupled receptor MRCX1.
GN Name=MRCPRX1;
OS Homo sapiens (Human).
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae;
OC Homo.
OX NCBI_TaxID=9606;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE: G-protein coupled receptors;
RX MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
RA Strassberg R.L., Feingold E.A., Grouse L.H., Derge J.G.,
RA Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Scheffer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Diachenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Brownstein M.J., Uedlin T.B., Toshiyuki S., Carninci P., Frange C.J.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullaly P.H.,
RA Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Richards S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Villalón D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,
RA Fahy J., Helton E., Kettelman M., Madan A., Rodriguez S., Sanchez A.,
RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,
RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,
RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalins D.E.,
RA Scherch A., Schein J.E., Jones S.J.W., Marra M.A.,
RT "Generation and initial analysis of more than 15,000 full-length human
RT and mouse cDNA sequences."
RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
RN [2]
RP NUCLEOTIDE SEQUENCE.
RC TISSUE: G-protein coupled receptors;
RG NIH MGC Project;
RL Submitted (JUN-2005) to the EMBL/GenBank/DBJ databases.
CC -1- SUBCELLULAR LOCATION: Integral membrane protein (by similarity).
CC EMBL; BC096835; AAL68683.1; -, mRNA.
DR InterPro; IPR000276; GPCR_Rhodopsn.
DR Pfam; PF00001; 7tm 1; 1.
DR PRINTS; PR00237; GPCR_RHODOPSIN.
DR PROSITE; PS00237; G_PROTEIN_REC_P1_1; UNKNOWN_1.
DR PROSITE; PS00262; G_PROTEIN_REC_P1_2; 1.
KW G-protein coupled receptor; Receptor; Transducer; Transmembrane.
SQ
Query Match 81.0%; Score 1370; DB 2; Length 322;
Best Local Similarity 81.7%; Pred. No. 3.2e-90;
Matches 263; Conservative 23; Mismatches 36; Indels 0; Gaps 0;
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DB 301 VDEGGQLPBETLELSGSRLDQ 322

RESULT 7

MKGX4 HUMAN

ID MKGX4 HUMAN STANDARD; PRT; 322 AA.

AC Q961A9; Q502W0; Q8TD6; (Rel. 45, Created)

DT 25-OCT-2004 (Rel. 45, Last sequence update)

DT 13-SEP-2005 (Rel. 48, Last annotation update)

DE Mas-related G-protein coupled receptor member X4 (Sensory neuron-specific G-protein coupled receptor 6).

GN Name=MKGX4; Synonyms=MKGX4, SNSR6;

OS Homo sapiens (Human).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi; Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Hominidae; Homo.

OC NCBI\_TaxID=9606;

OX (1)

RP NUCLEOTIDE SEQUENCE (GENOMIC DNA).

RX MEDLINE=21435808; PubMed=11551509; DOI=10.1016/S0092-8674(01)00483-4; Zhang X., Han S.-K., Zylka M.J., Simon M.J., Anderson D.J.;

RT "A diverse family of GPCRs expressed in specific subsets of nociceptive sensory neurons."

RT Cell 106:619-632(2001).

RT (2)

RN NUCLEOTIDE SEQUENCE (GENOMIC DNA), AND TISSUE SPECIFICITY.

RP MEDLINE=21853733; PubMed=1850634; DOI=10.1038/nm815; Lembo P.M.C., Grazzi E., Groblewski T., O'Donnell D., Roy M.-O., Zhang J., Hoffert C., Cao J., Schmidt R., Pelletier M., Labarre M., Gosselin M., Fortin J., Banville D., Shen S., Stoeck P., Payza K., Dray A., Walker P., Ahmad S.;

RT "Proenkephalin A gene products activate a new family of sensory neuron-specific GPCRs."

RT Nat. Neurosci. 5:201-209(2002).

RN [3]

RP NUCLEOTIDE SEQUENCE (LARGE SCALE MRNA).

RX MEDLINE=22382573; PubMed=12477932; DOI=10.1073/pnas.242603899; Strausberg R.L., Feingold E.A., Grouse L.H., Derge J.G., Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G., Altchuk S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K., Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Heide F., Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L., Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E., Brownstein M.J., Utschi T.B., Toshiyuki S., Carninci P., Prange C., Raha S.S., Loughellano N.A., Peters G.J., Abramson R.D., Mullany S.J., Bosak S.A., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H., Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W., Viallon D.K., Muzny D.M., Sodergren E.J., Lu X., Gibbs R.A., Fahey J., Helton E., Kettelman M., Madan A., Rodriguez S., Sanchez A., Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G., Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C., Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M., Butlerfield Y.S.N., Krzywicki M.I., Skalska U., Smilans D.E., Scherch A., Schein J.E., Jones S.J.M., Marra M.A.;

RT "Generation and initial analysis of more than 15,000 full-length human and mouse cDNA sequences."

RT Proc. Natl. Acad. Sci. U.S.A. 99:16699-16903(2002).

CC -1- FUNCTION: Orphan receptor. Probably involved in the function of nociceptive neurons. May regulate nociceptor function and/or development, including the sensation or modulation of pain.

CC Potentially activated by enkephalins (By similarity).

CC -1- SUBCELLULAR LOCATION: Integral membrane protein.

CC -1- TISSUE SPECIFICITY: Uniquely localized in a subset of small dorsal root and trigeminal sensory neurons.

CC -1- SIMILARITY: Belongs to the G-protein coupled receptor 1 family. Mas subfamily.

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CC -----

DR EMBL; AY042216; AAK91807.1; -; Genomic DNA.

DR EMBL; AF474992; AAL86883.1; -; Genomic DNA.

DR EMBL; BC095509; AAN95509.1; -; mRNA.

DR EMBL; ENSG00000179817; Homo sapiens.

DR HGNC; HGNC:17617; MRGPX4.

DR MIM; 607230; -;

DR InterPro; IPR000276; GPCR\_Rhodopsin.

DR Pfam; PF00001; 7tm\_1.1.

DR PRINTS; PR00237; GPCRHODOPSIN.

DR PROSITE; PS00237; G PROTEIN RECEPTOR F1.1.

DR PROSITE; PS00262; G PROTEIN RECEPTOR F1.2.

KM G-protein coupled receptor; Glycoprotein; Polymorphism; Receptor; Transducer; Transmembrane.

FT TOPO\_DOM 1 31 Extracellular (Potential).

FT TRANSMEM 32 52 1 (Potential).

FT TOPO\_DOM 53 60 Cytoplasmic (Potential).

FT TRANSMEM 61 81 2 (Potential).

FT TOPO\_DOM 82 96 Extracellular (Potential).

FT TRANSMEM 97 117 3 (Potential).

FT TOPO\_DOM 118 137 Cytoplasmic (Potential).

FT TRANSMEM 138 158 4 (Potential).

FT TOPO\_DOM 159 177 Extracellular (Potential).

FT TRANSMEM 178 198 5 (Potential).

FT TOPO\_DOM 199 218 Cytoplasmic (Potential).

FT TRANSMEM 219 239 6 (Potential).

FT TOPO\_DOM 240 254 Extracellular (Potential).

FT TRANSMEM 255 275 7 (Potential).

FT TOPO\_DOM 276 322 Cytoplasmic (Potential).

FT CARBOHYD 25 25 N-linked (GlcNAc...) (Potential).

FT CARBOHYD 89 89 N-linked (GlcNAc...) (Potential).

FT VARIANT 8 8 F -> L (1n dbSNP:2468774).

FT VARIANT 25 25 /FTID=VAR\_019435.

FT VARIANT 54 54 N -> K (1n dbSNP:2445180).

FT VARIANT 54 54 /FTID=VAR\_019436.

FT VARIANT 83 83 Y -> C (1n dbSNP:1869788).

FT VARIANT 83 83 /FTID=VAR\_019437.

FT CONFLICT 182 182 S -> L (1n dbSNP:2445179).

FT CONFLICT 319 319 A -> V (1n Ref. 2).

FT CONFLICT 319 319 R -> K (1n Ref. 2).

SO SEQUENCE 322 AA; 36434 MW; 7CA676F8BD390A31 CRC64;

Query Match 80.8%; Score 1366; DB 1; Length 322;

Best Local Similarity 83.1%; Pred. No. 6, 1e-90;

Matches 266; Conservative 21; Mismatches 33; Indels 0; Gaps 0;

QY 1 MDPTIPVLGKTLPIINGRETPCYNOTLSFTGTCIISLVALTGNVAVMLGCRMRNA 60

DB 1 MDPTVVFSGKLPINGRETEPCYNOTLSFTVTCIISLVGTGNVAVMLGCRMRNA 60

QY VSIYIILVAANFLPLSGHIIFFSPPLINIRHPISKIISPWTFFYIGLSMLSAISTER 120

DB VSIYIILVAANFLPLSGHIIFFSPPLINIRHPISKIISPWTFFYIGLSMLSAISTER 120

QY 61 VSIYIILVAANFLPLSGHIIFFSPPLINIRHPISKIISPWTFFYIGLSMLSAISTER 120

DB 61 VSIYIILVAANFLPLSGHIIFFSPPLINIRHPISKIISPWTFFYIGLSMLSAISTER 120

QY 121 CISTLPIYHCRPRRYSSVNCVLIAMLSRIIEMFCPLFSGANSWCETSDFT 180

DB 121 CISTLPIYHCRPRRYSSVNCVLIAMLSRIIEMFCPLFSGANSWCETSDFT 180

QY 121 CISTLPIYHCRPRRYSSVNCVLIAMLSRIIEMFCPLFSGANSWCETSDFT 180

DB 121 CISTLPIYHCRPRRYSSVNCVLIAMLSRIIEMFCPLFSGANSWCETSDFT 180

QY 181 IMLVFLCVLLGSSSLVLRILICGSRKMPRLRYVTILLTVLFLGLPGIOWALFS 240

DB 181 IMLVFLCVLLGSSSLVLRILICGSRKMPRLRYVTILLTVLFLGLPGIOWALFS 240

QY 241 RIHLDMKVLFCVHVLVIFLSALNNSANPIYFFVGSFROQRONRLKVLGRALDTP 300

DB 241 RIHLDMKVLFCVHVLVIFLSALNNSANPIYFFVGSFROQRONRLKVLGRALDTP 300

QY 301 VDEGGQLPBETLELSGSRL 320

DB 301 VDEGGQLPBETLELSGSRL 320

RESULT 8

OSU9E0\_MACFA PRELIMINARY; PRT; 322 AA.  
AC OSU9E0;  
DT 01-FEB-2005 (T-EMBLrel. 29, Created)  
DT 01-FEB-2005 (T-EMBLrel. 29, Last sequence update)  
DT 01-FEB-2005 (T-EMBLrel. 29, Last annotation update)  
DE Mac-related protein X1/7.  
GN Name=Mxk1/7;  
OS Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;  
OC Cercopithecoidea; Cercopithecinae; Macaca.  
OC NCBI\_Taxid=9541;  
OX (1)  
RN NUCLEOTIDE SEQUENCE.  
RP Zhang L., Taylor N., Ford R., Johnson J., Paulsen J.E., Bates B.;  
RT "Cloning and Expression of MRG Receptors in Macaque, Mouse, and Human."  
RL Submitted (OCT-2004) to the EMBL/GenBank/DBJ databases.  
CC -1- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).  
DR EMBL; AY772457; AAV49124.1; -; Genomic DNA.  
DR GO; GO:0016021; C:integral to membrane; IEA.  
DR GO; GO:0004872; F:receptor activity; IEA.  
DR GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.  
DR GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.  
DR InterPro; IPR000276; GPCR\_Rhodopsn.  
DR Pfam; PF00001; 7tm.1; 1.  
DR PRINTS; PR00237; GPCRHOPOPSN.  
DR PROSITE; PS00237; G\_PROTEIN\_RECEP\_F1\_1; UNKNOWN\_1.  
DR PROSITE; PS0262; G\_PROTEIN\_RECEP\_F1\_2; 1.  
KW G-protein coupled receptor; Receptor; Transducer; Transmembrane.  
SQ SEQUENCE 322 AA; 36781 MW; 54F5801F294B07B CRC64;

Query Match 78.9%; Score 1334; DB 2; Length 322;

Best Local Similarity 79.2%; Pred. No. 1.2e-87; Matches 255; Conservative 27; Mismatches 40; Indels 0; Gaps 0;

QY 1 MDPTIVLGTSLTPINGREETPCYNQTLSTFTGTCISVALTGNVAVMLLGCRRRNA 60  
DB 1 MDPTITLDTLSTPTINGREETPCYNQTLSTFTGTCISVALTGNVAVMLLGCRRRNA 60  
QY 61 VSIYIINLVANPLFLSGHIFSPPLINIRHPISKILSPVMTFPYFGLSMISAISTER 120  
DB 61 FSIYIINLVANPLFLSGHIFSPPLINIRHPISKILSPVMTFPYFGLSMISAISTER 120  
QY 121 CTSILMPYHRCRRPYLSSVWCVLIMALSILSIEMFCDFLFGANSVWCETSDFTT 180  
DB 121 CTSVLMPIWYRCRRPYLSSVWCVLIMALSILSIEMFCDFLFGANSVWCETSDFTT 180  
QY 121 CTSVLMPIWYRCRRPYLSSVWCVLIMALSILSIEMFCDFLFGANSVWCETSDFTT 180  
DB 121 CTSVLMPIWYRCRRPYLSSVWCVLIMALSILSIEMFCDFLFGANSVWCETSDFTT 180  
QY 181 IAWLVFLCVLGGSSIVLVIRILCGSRKMPRLRYTYTILLTVLVFLCGLPFGIOMALFS 240  
DB 181 IAWLVFLCVLGGSSIVLVIRILCGSRKMPRLRYTYTILLTVLVFLCGLPFGIOMALFS 240  
QY 241 RIHLDMKVLFCVHVLVSIPLSALNSSANPIYFVGSPFORONRQMLKVLQALODTPE 300  
DB 241 RIHLDMKVLFCVHVLVSIPLSALNSSANPIYFVGSPFORONRQMLKVLQALODTPE 300  
QY 301 VDEGGGMLPQETIELSGSKLEQ 322  
DB 301 VDEGGGMLPQETIELSGSKLEQ 322

## RESULT 9

OSU9D6\_MACFA PRELIMINARY; PRT; 322 AA.  
AC OSU9D6;  
DT 01-FEB-2005 (T-EMBLrel. 29, Created)  
DT 01-FEB-2005 (T-EMBLrel. 29, Last sequence update)  
DT 01-FEB-2005 (T-EMBLrel. 29, Last annotation update)  
DE Mac-related protein X8.  
GN Name=Mxk8;  
OS Macaca fascicularis (Crab eating macaque) (Cynomolgus monkey).

OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;  
OC Cercopithecoidea; Cercopithecinae; Macaca.  
OC NCBI\_Taxid=9541;  
OX (1)  
RN NUCLEOTIDE SEQUENCE.  
RP Zhang L., Taylor N., Ford R., Johnson J., Paulsen J.E., Bates B.;  
RT "Cloning and Expression of MRG Receptors in Macaque, Mouse, and Human."  
RL Submitted (OCT-2004) to the EMBL/GenBank/DBJ databases.  
CC -1- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).  
DR EMBL; AY772461; AAV49128.1; -; Genomic DNA.  
DR GO; GO:0016021; C:integral to membrane; IEA.  
DR GO; GO:0004872; F:receptor activity; IEA.  
DR GO; GO:0001584; F:rhodopsin-like receptor activity; IEA.  
DR GO; GO:0007186; P:G-protein coupled receptor protein signalin. . .; IEA.  
DR InterPro; IPR000276; GPCR\_Rhodopsn.  
DR Pfam; PF00001; 7tm.1; 1.  
DR PRINTS; PR00237; GPCRHOPOPSN.  
DR PROSITE; PS00237; G\_PROTEIN\_RECEP\_F1\_1; UNKNOWN\_1.  
DR PROSITE; PS0262; G\_PROTEIN\_RECEP\_F1\_2; 1.  
KW G-protein coupled receptor; Receptor; Transducer; Transmembrane.  
SQ SEQUENCE 322 AA; 36514 MW; 2C7A0B9C21F4287E CRC64;

Query Match 72.4%; Score 1225; DB 2; Length 322;

Best Local Similarity 75.8%; Pred. No. 7.6e-80; Matches 244; Conservative 21; Mismatches 57; Indels 0; Gaps 0;

QY 1 MDPTIVLGTSLTPINGREETPCYNQTLSTFTGTCISVALTGNVAVMLLGCRRRNA 60  
DB 1 MDPTITLDTLSTPTINGREEMPCYKTLTILTVLCIVSLIGLTGNVAVMLLGFRRRNA 60  
QY 61 VSIYIINLVANPLFLSGHIFSPPLINIRHPISKILSPVMTFPYFGLSMISAISTER 120  
DB 61 FSIYIINLVANPLFLSGHIFSPPLINIRHPISKILSPVMTFPYFGLSMISAISTER 120  
QY 121 CTSILMPYHRCRRPYLSSVWCVLIMALSILSIEMFCDFLFGANSVWCETSDFTT 180  
DB 121 CTSVLMPIWYRCRRPYLSSVWCVLIMALSILSIEMFCDFLFGANSVWCETSDFTT 180  
QY 121 CTSVLMPIWYRCRRPYLSSVWCVLIMALSILSIEMFCDFLFGANSVWCETSDFTT 180  
DB 121 CTSVLMPIWYRCRRPYLSSVWCVLIMALSILSIEMFCDFLFGANSVWCETSDFTT 180  
QY 181 IAWLVFLCVLGGSSIVLVIRILCGSRKMPRLRYTYTILLTVLVFLCGLPFGIOMALFS 240  
DB 181 IAWLVFLCVLGGSSIVLVIRILCGSRKMPRLRYTYTILLTVLVFLCGLPFGIOMALFS 240  
QY 241 RIHLDMKVLFCVHVLVSIPLSALNSSANPIYFVGSPFORONRQMLKVLQALODTPE 300  
DB 241 RIHLDMKVLFCVHVLVSIPLSALNSSANPIYFVGSPFORONRQMLKVLQALODTPE 300  
QY 301 VDEGGGMLPQETIELSGSKLEQ 322  
DB 301 VDEGGGMLPQETIELSGSKLEQ 322

## RESULT 10

Q4OXU4\_TRAFR PRELIMINARY; PRT; 330 AA.  
AC Q4OXU4;  
DT 13-SEP-2005 (T-EMBLrel. 31, Created)  
DT 13-SEP-2005 (T-EMBLrel. 31, Last sequence update)  
DT 13-SEP-2005 (T-EMBLrel. 31, Last annotation update)  
DE MRGX2.  
GN Name=MRGX2;  
OS Trachypithecus francoisi (Francois' langur) (Indochinese langur).  
OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;  
OC Cercopithecoidea; Colobinae; Trachypithecus.  
OC NCBI\_Taxid=54180;  
OX (1)  
RN NUCLEOTIDE SEQUENCE.  
RP Yang S., Liu Y., Lin A.A., Cavalli-Storza L.L., Zhao Z., Su B.;  
RX PubMed=15862286; DOI=10.1016/j.gene.2005.03.001;  
RA "Adaptive evolution of MRGX2, a human sensory neuron specific gene

RT involved in nociception.";  
 RL Gene 352C.30-35(2005).  
 CC -1- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).  
 DR EMBL: AY651164; AAW70077.1; -; Genomic\_DNA.  
 DR InterPro: IPR000276; GPCR\_Rhodopsin.  
 DR Pfam: PF00001; 7tm\_1, 1.  
 DR PRINTS: PR00237; GPCRHOPOPSN.  
 DR PROSITE: PS00237; G\_PROTEIN\_RECEP\_F1\_1; UNKNOWN\_1.  
 DR PROSITE: PS50262; G\_PROTEIN\_RECEP\_F1\_2; 1.  
 KW G-protein coupled receptor; Receptor; Transducer; Transmembrane.  
 SQ SEQUENCE 330 AA; 37043 MW; 4EB8AD391CE443A CRC64;

Query Match 59.0%; Score 998.5; DB 2; Length 330;  
 Best Local Similarity 63.8%; Pred. No. 1.3e-63;  
 Matches 210; Conservative 28; Mismatches 82; Indels 9; Gaps 3;

QY 1 MPTTIPVLTGKTLPINGREET---PCYNOTLSTGTCTCTISLVATLGNVAVMLLGCRRR 57  
 DB 1 MPTTIPVLTGKTLPINGREET---PCYNOTLSTGTCTCTISLVATLGNVAVMLLGCRRR 60  
 QY 58 RAAVSIIYIINLVANFLPSGHIIFSPPLINIRHPIS---KILSPVWTFPFYIGLSML 113  
 DB 61 RAAFSYVYVSLAGADFLFCFPMINCLAVLINPFHSISINFPSPFTTWTCAVYLGSLML 120  
 QY 114 SAISTERCLSTIPIWYRCRRPRYLSVWCVLMLSLRSILEMWFCDPLFSGANSVWC 173  
 DB 121 SAISTERCLSTIPIWYRSRRPRHLSAVMCVILMLSLLSILEGKFCGFLFSDGSGMC 180  
 QY 174 ETSDFITIMLVFLCVLGGSSVLVRLICGSRKMPRLRYVTILLTVLVEFLCGLPFG 233  
 DB 181 QTFDFITAMLMFLFVLGSSSLALLVRLICGSRGPPRLRYVTILLTVLVEFLCGLPFG 240  
 QY 234 IQWALFSRIHLDKVLFCVHLVSIPLSLANSSANPIIYFVGSFRQ--RQRNQLKVL 291  
 DB 241 IQMFLIMTWKNSDVLFCIHFPVSIVLSSFNSSANPIIYFVGSFRKQRLRQPVLKAL 300  
 QY 292 QRALDTPREVDEGGWLPQETLELSSSKL 320  
 DB 301 QRALDTPAEVDHSEGGFSGGTLEMGSSSL 329

RESULT 11  
 Q4OXU2 PYGBI PRELIMINARY; PRT; 330 AA.  
 AC Q4OXU2;  
 DT 13-SEP-2005 (TrEMBLrel. 31, Created)  
 DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)  
 DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)  
 DE MRGX2.  
 GN Name=MRGX2;  
 OS Pygathrix bieti (Black snub-nosed monkey) (Rhinothecus bieti).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;  
 OC Cercopitheidae; Colobinae; Pygathrix.  
 OX NCBI\_TaxID=61621;  
 RN [1]  
 RP NUCLEOTIDE SEQUENCE.  
 RA PubMed:15862286; DOI=10.1016/j.gene.2005.03.001;  
 RA Yang S., Liu Y., Lin A.A., Cavalli-Sforza L.L., Zhao Z., Su B.;  
 RT "Adaptive evolution of MRGX2, a human sensory neuron specific gene  
 involved in nociception.";  
 RT Involved in nociception.";  
 RL Gene 352C.30-35(2005).  
 CC -1- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).  
 DR EMBL: AY651166; AAW70079.1; -; Genomic\_DNA.  
 DR InterPro: IPR000276; GPCR\_Rhodopsin.  
 DR Pfam: PF00001; 7tm\_1, 1.  
 DR PRINTS: PR00237; GPCRHOPOPSN.  
 DR PROSITE: PS00237; G\_PROTEIN\_RECEP\_F1\_1; UNKNOWN\_1.  
 DR PROSITE: PS50262; G\_PROTEIN\_RECEP\_F1\_2; 1.  
 KW G-protein coupled receptor; Receptor; Transducer; Transmembrane.  
 SQ SEQUENCE 330 AA; 37007 MW; F91875540B4716DE CRC64;

Query Match 59.0%; Score 998.5; DB 2; Length 330;

Best Local Similarity 63.2%; Pred. No. 1.3e-63;  
 Matches 208; Conservative 30; Mismatches 82; Indels 9; Gaps 3;  
 QY 1 MPTTIPVLTGKTLPINGREET---PCYNOTLSTGTCTCTISLVATLGNVAVMLLGCRRR 57  
 DB 1 MPTTIPVLTGKTLPINGREET---PCYNOTLSTGTCTCTISLVATLGNVAVMLLGCRRR 60  
 QY 58 RAAVSIIYIINLVANFLPSGHIIFSPPLINIRHPIS---KILSPVWTFPFYIGLSML 113  
 DB 61 RAAFSYVYVSLAGADFLFCFPMINCLAVLINPFHSISINFPSPFTTWTCAVYLGSLML 120  
 QY 114 SAISTERCLSTIPIWYRCRRPRYLSVWCVLMLSLRSILEMWFCDPLFSGANSVWC 173  
 DB 121 SAISTERCLSTIPIWYRSRRPRHLSAVMCVILMLSLLSILEGKFCGFLFSDGSGMC 180  
 QY 174 ETSDFITIMLVFLCVLGGSSVLVRLICGSRKMPRLRYVTILLTVLVEFLCGLPFG 233  
 DB 181 QTFDFITAMLMFLFVLGSSSLALLVRLICGSRGPPRLRYVTILLTVLVEFLCGLPFG 240  
 QY 234 IQWALFSRIHLDKVLFCVHLVSIPLSLANSSANPIIYFVGSFRQ--RQRNQLKVL 291  
 DB 241 IQMFLIMTWKNSDVLFCIHFPVSIVLSSFNSSANPIIYFVGSFRKQRLRQPVLKAL 300  
 QY 292 QRALDTPREVDEGGWLPQETLELSSSKL 320  
 DB 301 QRALDTPAEVDHSEGGFSGGTLEMGSSSL 329

RESULT 12  
 MRGX2\_MACFA STANDARD; PRT; 330 AA.  
 ID MRGX2\_MACFA  
 AC 0509D9;  
 DT 10-MAY-2005 (Rel. 47, Created)  
 DT 10-MAY-2005 (Rel. 47, Last sequence update)  
 DT 13-SEP-2005 (Rel. 48, Last annotation update)  
 DE Mac-related G-protein coupled receptor member X2.  
 GN Name=MRGX2; Synonyms=MRGX2;  
 OS Macaca fascicularis (Crab eating macaque) (Cynomolpus monkey).  
 OC Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;  
 OC Cercopitheidae; Cercopithecinae; Macaca.  
 OX NCBI\_TaxID=9541;  
 RN [1]  
 RP NUCLEOTIDE SEQUENCE.  
 RA Zhang L., Taylor N., Ford R., Johnson J., Paulsen J.E., Bates B.;  
 RT "Cloning and expression of MRG receptors in macaque, mouse, and  
 human." (OCT-2004) to the EMBL/GenBank/DBJ databases.  
 RL Submitted (OCT-2004) to the EMBL/GenBank/DBJ databases.  
 CC -1- FUNCTION: Orphan receptor. Probably involved in the function of  
 nociceptive neurons. May regulate nociceptor function and/or  
 development, including the sensation or modulation of pain (By  
 similarity).  
 CC -1- SUBCELLULAR LOCATION: Integral membrane protein.  
 CC -1- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.  
 CC Mac subfamily.  
 CC -----  
 CC This Swiss-Prot entry is copyright. It is produced through a collaboration  
 CC between the Swiss Institute of Bioinformatics and the EMBL outstation  
 CC the European Bioinformatics Institute. There are no restrictions on its  
 CC use as long as its content is in no way modified and this statement is not  
 CC removed.  
 CC -----  
 DR EMBL: AY772458; AAW49125.1; -; Genomic\_DNA.  
 DR InterPro: IPR000276; GPCR\_Rhodopsin.  
 DR Pfam: PF00001; 7tm\_1, 1.  
 DR PRINTS: PR00237; GPCRHOPOPSN.  
 DR PROSITE: PS00237; G\_PROTEIN\_RECEP\_F1\_1; FALSE\_NEG.  
 DR PROSITE: PS50262; G\_PROTEIN\_RECEP\_F1\_2; 1.  
 KW G-protein coupled receptor; Receptor; Transducer; Transmembrane.  
 FT TOPO\_DOM 1 33  
 FT TRANSMEM 34 54  
 FT TOPO\_DOM 55 63  
 FT TRANSMEM 64 84  
 FT 2 (Potential).  
 FT 2 (Potential).

Query Match 58.0%; Score 980.5; DB 1; Length 330;  
 Best Local Similarity 62.6%; Pred. No. 2.5e-62;  
 Matches 206; Conservative 29; Mismatches 85; Indels 9; Gaps 3;

QY 1 MPTPTVLTGKTLPIINGREBT---PCVNOTLSTFTGTCIISVALTGNVAVMLGCRMR 57  
 DB 1 MPTTPAWGTSTTNGNDQALPLCGKRTMSVFLIFLALVGLGNFVIMLGFRRR 60  
 QY 58 RNAVSYYIILVAANFLFSGHIIFSPPLINIRHPIS---KLSPVATPFYIGLSML 113  
 DB 61 RNAFSYVYVLSLGNADFLFCFQMTNCLAVLINPFGSISINPSPFTTWTCAAGLSML 120  
 QY 114 SAISTERCLSIIMPWYHCRPRRYSSVNCVLLMALSLRSLIEMWFCDFLFGSANSVVC 173  
 DB 121 SAISTORCLSIIMPWYHCRPRRHSAVNCVLLMALSLRSLIEMWFCDFLFGSDGSGVC 180  
 QY 174 ETSDFITTAAMVFLCVLGGSSLVLLVRLCGSRKMPRLRYVTILLTVLFLGCLPFG 233  
 DB 181 QTFDFITTAAMVFLCVLGGSSLVLLVRLCGSRSLPLRLYVTILLTVLFLGCLPFG 240  
 QY 224 IOMALFSRIHLMKVLFCHVHVSIFLSALNSSANPIIYFVGSFPRO--RONRONLKL 291  
 DB 241 IOMFLILWTKNSDVLFCGHIHPVSIVLSFNSANPIIYFVGSFPROKRLQPIKL 300  
 QY 292 ORALODTPEVDEGGWLPQETLELGSKTL 320  
 DB 301 ORALODTAEVDHSEGGFSGTLEMSRSSL 329

RESULT 13  
 Q4OXU5\_MACMU PRELIMINARY; PRT; 329 AA.  
 AC Q4OXU5;  
 DT 13-SEP-2005 (TRENBLrel. 31, Created)  
 DT 13-SEP-2005 (TRENBLrel. 31, Last sequence update)  
 DT 13-SEP-2005 (TRENBLrel. 31, Last annotation update)  
 DE MRGX2.  
 GN Name=MRGX2;  
 OS Macaca mulatta (Rhesus macaque).  
 OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;  
 OC Cercopitheidae; Cercopithecinae; Macaca.  
 NCBI\_TaxID=9544;  
 RN [1]  
 RP NUCLEOTIDE SEQUENCE.  
 RX PubMed=15862286; DOI=10.1016/j.gene.2005.03.001.  
 RA Yang S., Liu Y., Lin A.A., Cavalli-Storzi L.L., Zhao Z., Su B.;  
 "Adaptive evolution of MRGX2, a human sensory neuron specific gene  
 involved in nociception.";  
 RL Gene 352C:30-35(2005).  
 CC -!- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).  
 DR EMBL: AY651163; AAC07076.1; Genomic\_DNA.  
 DR InterPro: IPR000276; GPCR\_KnoGpsn.  
 DR Pfam: PF00001; 7tm\_1.1.  
 DR PRINTS: PR00237; GPCRHHODPSN.  
 DR PROSITE: PS00237; G PROTEIN RECP\_F1\_1; UNKNOWN\_1.  
 DR PROSITE: PS00262; G PROTEIN RECP\_F1\_2; 1.  
 KW G-protein coupled receptor; Receptor; Transducer; Transmembrane.  
 SQ SEQUENCE 329 AA; 37041 MW; 02AB400A7BC7EB99 CRC64;

Query Match 58.0%; Score 980; DB 2; Length 329;  
 Best Local Similarity 63.0%; Pred. No. 2.7e-62;  
 Matches 209; Conservative 28; Mismatches 79; Indels 16; Gaps 6;

QY 1 MPTPTVLTGKTLPIINGREBT---PCVNOTLSTFTGTCIISVALTGNVAVMLGCRMR 57  
 DB 1 MPTTPAWGTSTTNGNDQALPLCGKRTMSVFLIFLALVGLGNFVIMLGFRRR 60  
 QY 58 RNAVSYYIILVAANFLFSGHIIFSPPLINIRHPIS---KLSPVATPFYIGLSML 113  
 DB 61 RNAFSYVYVLSLGNADFLFCFQMTNCLAVLINPFGSISINPSPFTTWTCAAGLSML 119  
 QY 114 SAISTERCLSIIMPWYHCRPRRYSSVNCVLLMALSLRSLIEMWFCDFLFGSANSVVC 173  
 DB 120 SAISTORCLSIIMPWYHCRPRRHSAVNCVLLMALSLRSLIEMWFCDFLFGSDGSGVC 179  
 QY 174 ETSDFITTAAMVFLCVLGGSSLVLLVRLCGSRKMPRLRYVTILLTVLFLGCLPFG 233  
 DB 180 QTFDFITTAAMVFLCVLGGSSLVLLVRLCGSRSLPLRLYVTILLTVLFLGCLPFG 239  
 QY 224 IOMALFSRIHLMKVLFCHVHVSIFLSALNSSANPIIYFVGSFPRO--RONRONLKL 288  
 DB 240 IOMFLILWTKNSDVLFCGHIHPVSIVLSFNSANPIIYFVGSFPROKRLQPIKL 296  
 QY 289 IYQORALODTPEVDEGGWLPQETLELGSKTL 320  
 DB 297 IALQORALODTAEVDHSEGGFSGTLEMSRSSL 328

RESULT 14  
 MRGX2\_HUMAN STANDARD; PRT; 330 AA.  
 ID MRGX2\_HUMAN  
 AC 096LBI;  
 DT 25-OCT-2004 (Rel. 45, Created)  
 DT 25-OCT-2004 (Rel. 45, Last sequence update)  
 DT 13-SEP-2005 (Rel. 48, Last annotation update)  
 DE Mas-related G-protein coupled receptor member x2.  
 GN Name=MRGPRX2; Synonyms=MRGX2;  
 OS Homo sapiens (Human).  
 OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homiidae;  
 OC Homo.  
 NCBI\_TaxID=9606;  
 RN [1]  
 RP NUCLEOTIDE SEQUENCE.  
 RX MEDLINE=21435808; PubMed=11551509; DOI=10.1016/S0092-8674(01)00483-4;  
 RA Dong X., Han S.-K., Zylka M.J., Simon M.I., Anderson D.J.;  
 "A diverse family of GPCRs expressed in specific subsets of  
 nociceptive sensory neurons.";  
 RL Cell 106:619-632(2001).  
 RN [2]  
 RP NUCLEOTIDE SEQUENCE.  
 RX MEDLINE=22040266; PubMed=12044878; DOI=10.1016/S0014-5793(02)02775-8;  
 RA Takeda S., Kadowaki S., Haga T., Takeasu H., Mitaku S.;  
 "Identification of G protein-coupled receptor genes from the human  
 genome sequence.";  
 RL FEBS Lett. 520:97-101(2002).  
 RN [3]  
 RP NUCLEOTIDE SEQUENCE.  
 RA Suwa M., Sato T., Okouchi I., Arima M., Futami K., Matsumoto S.,  
 Tautsuni S., Aburatani H., Asai K., Akiyama Y.;  
 "Genome-wide discovery and analysis of human seven transmembrane helix  
 receptor genes.";  
 RL Submitted (JUL-2001) to the EMBL/GenBank/DBJ databases.  
 RN [4]  
 RP NUCLEOTIDE SEQUENCE (LARGE SCALE MRNA).  
 RC TISSUE=Brain;  
 RX MEDLINE=22388257; PubMed=1477932; DOI=10.1073/pnas.242603899;  
 RA Strausberg R.L., Feingold E.A., Grove L.H., Derge J.G.,  
 Klausner R.D., Collins F.S., Wagner L., Shenmen C.M., Schuler G.D.,  
 Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,  
 Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,  
 Diatchenko L., Marusina K., Farmer A.A., Rubin G.M., Hong L.,

RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,  
 RA Brownstein M.J., Uedon T.B., Toshiyuki S., Carninci P., Prange C.,  
 RA Raha S.S., Loguercio N.A., Peters G.J., Abramson R.D., Mullighy S.J.,  
 RA Boeak S.A., McEwen P.J., McKernan K.J., Malik J.A., Ginnarone P.H.,  
 RA Richardson S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,  
 RA Villalón D.K., Wuzny D.M., Sodergren E.J., Lu X., Gibbs R.A.,  
 RA Fahney J., Helton E., Kettelman M., Madan A., Rodrigues S., Sanchez A.,  
 RA Whiting M., Madan A., Young A.C., Shevchenko Y., Bouffard G.G.,  
 RA Blakesley R.W., Touchman J.W., Green E.D., Dickson M.C.,  
 RA Rodriguez A.C., Grimwood J., Schmutz J., Myers R.M.,  
 RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smalins D.E.,  
 RA Scherich A., Schein U.E., Jones S.J.M., Maira M.A.,  
 RA "Generation and initial analysis of more than 15,000 full-length human  
 RT and mouse cDNA sequences.";  
 RL Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903(2002).  
 RP TISSUE SPECIFICITY, AND POSSIBLE FUNCTION.  
 RX PubMed=12915402; DOI=10.1074/jbc.M302456200;  
 RA Robas N., Mead E., Fidoek M.,  
 RT "MrgX2 is a high potency corticotropin receptor expressed in dorsal root  
 ganglion.";  
 RL J. Biol. Chem. 278:44400-44404(2003).  
 CC -1- FUNCTION: Orphan receptor. Probably involved in the function of  
 CC nociceptive neurons. May regulate nociceptor function and/or  
 CC development, including the sensation or modulation of pain.  
 CC Corticotropin-14 seems to be a high potency ligand at this receptor.  
 CC Corticotropin has several biological functions including roles in  
 CC sleep regulation, locomotor activity, and cortical function. In  
 CC receptor-expressing cells, corticotropin-stimulated increases in  
 CC intracellular Ca(2+) but had no effect on basal or forskolin-  
 CC stimulated cAMP levels, suggesting that this receptor is G(q)-  
 CC coupled.  
 CC -1- SUBCELLULAR LOCATION: Integral membrane protein.  
 CC TISSUE SPECIFICITY: Has a limited expression profile, both  
 CC peripheral and within the central nervous system, with highest  
 CC levels in dorsal root ganglion.  
 CC -1- SIMILARITY: Belongs to the G-protein coupled receptor 1 family.  
 CC Mas subfamily.  
 CC -----  
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 CC between the Swiss Institute of Bioinformatics and the EMBL outstation -  
 CC the European Bioinformatics Institute. There are no restrictions on its  
 CC use as long as its content is in no way modified and this statement is not  
 CC removed.  
 CC -----  
 CC EMBL: AY042214; AK91805.1; -; Genomic DNA.  
 CC EMBL: AB083626; BAB89339.1; -; Genomic DNA.  
 CC EMBL: AB063811; BAC06030.1; -; Genomic DNA.  
 CC EMBL: BC063450; AAH63450.1; -; mRNA.  
 CC EMBL: ENSG00000183695; Homo sapiens.  
 CC DR HGN: HGNC:17983; MRGPRX2.  
 CC DR MIM: 607228; -;  
 CC DR GO: GO:0016021; C: integral to membrane; IC.  
 CC DR GO: GO:0004930; F: G-protein coupled receptor activity; IDA.  
 CC DR GO: GO:0042923; F: neuropeptide binding; IPI.  
 CC DR GO: GO:0019233; P: perception of pain; NAS.  
 CC DR GO: GO:0030431; P: release; NAS.  
 CC DR InterPro: IPR000276; GPCR\_Rhodopsin.  
 CC DR Pfam: PF00001; 7tm\_1; 1.  
 CC DR PRINTS: PR00237; GPCR\_Rhodopsin.  
 CC DR PROSITE: PS00237; G-PROTEIN RECEPTOR FL1; 1.  
 CC DR PROSITE: PS50262; G-PROTEIN RECEPTOR FL2; 1.  
 CC DR G-protein coupled receptor; Polymorphism; Receptor; Transducer;  
 CC Transmembrane.  
 CC KW TOPO\_DOM 1 33 Extracellular (Potential).  
 CC FT TRANSMEM 34 54 Cytoplasmic (Potential).  
 CC FT TOPO\_DOM 55 63 Cytoplasmic (Potential).  
 CC FT TRANSMEM 64 84 Extracellular (Potential).  
 CC FT TOPO\_DOM 85 96 Extracellular (Potential).  
 CC FT TRANSMEM 97 117 Cytoplasmic (Potential).  
 CC FT TOPO\_DOM 118 144 Cytoplasmic (Potential).  
 CC FT TRANSMEM 145 165 Extracellular (Potential).  
 CC FT TOPO\_DOM 166 184 Extracellular (Potential).  
 CC -----

FT TRANSMEM 185 205 5 (Potential).  
 FT TOPO\_DOM 206 228 Cytoplasmic (Potential).  
 FT TRANSMEM 229 249 6 (Potential).  
 FT TOPO\_DOM 250 264 Extracellular (Potential).  
 FT TRANSMEM 265 285 7 (Potential).  
 FT TOPO\_DOM 286 330 Cytoplasmic (Potential).  
 FT VARIANT 62 62 N -> S (in dbSNP:10833049).  
 FT VARIANT 62 62 /FTID=VAR\_019413.  
 SQ SEQUENCE 330 AA; 37099 MM; 08328FD78B1DF6BE CRC64;  
 Query Match 57.9%; Score 978.5; DB 1; Length 330;  
 Best Local Similarity 62.3%; Pred. No. 3.5e-62;  
 Matches 205; Conservative 29; Mismatches 86; Indels 9; Gaps 3;  
 QY 1 MDPTIPVLGKTLTPINGEET---PCYNQTLSTFGTLCTISIALVTGNAVIMLIGCMR 57  
 DB 1 MDPTIPAGCTESTVTNGDQALLCGKELLPLVFLIFALVGVNGFVLMILGFMRR 60  
 QY 58 RNAAVITILNVAANFLSLGHITISPLINIRPIS---KILSPVMTPEYFGLSML 113  
 DB 61 RNAAFSVYVLSLGAQDFLFCFOILNCLVLSNPFCSISINPSPFTVTWCAYLAGLSWL 120  
 QY 114 SASTERGLSTLPIWYHCRPRYSYVVCVLLMALSLRSILEWFCDFLFGSANSYWC 173  
 DB 121 STVSTERCLSTVPIWYCRPRRHSAVVCVLLMALSLLSLEKFCGLFSDSDSGMC 180  
 QY 174 ETSDEITLAVLFLCVLGGSLVLLVILCGSRMPRLRYVTLILTVLVFLGLPG 233  
 DB 181 QTFDFITLAVLFLFVLVCGSSLLVILCGSRGLPLRYLTVLTVLVFLGLPG 240  
 QY 234 TQWALFSRLHLDKTLFCHVALVSLFSLNLSANPIYFFGSRQGNRQNRN--LKLVL 291  
 DB 241 IQWFLIWLWKSQDVLFCIHIPVSVALSLNSANPIYFFGSRQKRLQDPIKLAL 300  
 QY 292 QRALDQTPVEDSGGWLPOETLELSGSKL 320  
 DB 301 QRALDQIAEVDSGCFRQGTETMSRSSL 329  
 RESULT 15  
 Q4QXW4\_HUMAN  
 ID Q4QXW4\_HUMAN PRELIMINARY; PRT; 330 AA.  
 AC Q4QXW4;  
 DT 13-SEP-2005 (TrEMBLrel. 31, Created)  
 DT 13-SEP-2005 (TrEMBLrel. 31, Last sequence update)  
 DT 13-SEP-2005 (TrEMBLrel. 31, Last annotation update)  
 DE MRGX2.  
 GN Name=MRGX2;  
 OS Homo sapiens (Human).  
 OC Eukaryota; Metazoa; Chordata; Vertebrata; Euteleostomi;  
 OC Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini; Homiidae;  
 OC Homo.  
 NCBI\_TaxID=9606;  
 RN [1]  
 RP NUCLEOTIDE SEQUENCE.  
 RX PubMed=15862286; DOI=10.1016/j.gene.2005.03.001;  
 RA Yang S., Liu Y., Lin A.A., Cavalli-Sforza L.L., Zhao Z., Su B.;  
 RT "Adaptive evolution of MRGX2, a human sensory neuron specific gene  
 RT involved in nociception.";  
 RL Gene 352C:30-35(2005).  
 RN [2]  
 RP NUCLEOTIDE SEQUENCE.  
 RA Yang S., Liu Y., Lin A.A., Cavalli-Sforza L.L., Zhao Z., Su B.;  
 RT "Adaptive evolution of MRGX2, a human sensory neuron specific gene  
 RT involved in nociception.";  
 RL Gene 352:30-35(2005).  
 CC -1- SUBCELLULAR LOCATION: Integral membrane protein (By similarity).  
 CC EMBL: AY651160; AAM70073.1; -; Genomic DNA.  
 CC EMBL: AY651161; AAM70074.1; -; Genomic DNA.  
 CC EMBL: AY651143; AAM70056.1; -; Genomic DNA.  
 CC EMBL: AY651145; AAM70058.1; -; Genomic DNA.  
 CC EMBL: AY651144; AAM70057.1; -; Genomic DNA.  
 CC EMBL: AY845175; AAM70082.1; -; Genomic DNA.

DR EMBL; AY651146; AAW70059.1; -; Genomic\_DNA.  
 DR EMBL; AY651148; AAW70061.1; -; Genomic\_DNA.  
 DR EMBL; AY651150; AAW70063.1; -; Genomic\_DNA.  
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 DR EMBL; AY651158; AAW70071.1; -; Genomic\_DNA.  
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 DR EMBL; AY651155; AAW70068.1; -; Genomic\_DNA.  
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 DR EMBL; AY651151; AAW70064.1; -; Genomic\_DNA.  
 DR EMBL; AY651149; AAW70062.1; -; Genomic\_DNA.  
 DR EMBL; AY651147; AAW70060.1; -; Genomic\_DNA.  
 DR InterPro; IPR000276; GPCR\_Rhodopsin.  
 DR Pfam; PF00001; 7tm\_1; 1.  
 DR PRINTS; PR00237; GPCRHHODOPSIN.  
 DR PROSITE; PS00237; G\_PROTEIN\_RECEPTOR\_1.  
 DR PROSITE; PS00242; G\_PROTEIN\_RECEPTOR\_2.  
 KW G-protein coupled receptor; Receptor; Transducer; Transmembrane.  
 SQ SEQUENCE 330 AA; 37099 MW; 0B328FD78B1DF6BE CRC64;

Query Match 57.9%; Score 978.5; DB 2; Length 330;  
 Best Local Similarity 62.3%; Pred. No. 3.5e-62;  
 Matches 205; Conservative 29; Mismatches 86; Indels 9; Gaps 3;

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 QY 58 RNAVSIIYIINLVANLFLPSGHIIFSPPLINIRHPIS---KILSPVMTFFYIGLSML 113  
 DB 61 RNAFSVYVLSLAGADFLFCFQIINCLVYLSNPFCSISINFPSPFTTVMTCAYIAGLSML 120  
 QY 114 SAISTERCISIMPIWYHCRPRYLSVWCVLMLSLSLILEMFCDFLPSGANSWC 173  
 DB 121 STVSTERCLSVMPPIWYRCRPRHLSAVCVLLMALSLLSILEGKFCGLFSDGDSWC 180  
 QY 174 ETSDFITIMLVFLCVLGCSSLVLLVRLICGSRKMPFLRYVITLLTVVFLICGLPFG 233  
 DB 181 QTFDFITAMLVFLFVVLGCSSLALVRLICGSRGLPFLRYVITLLTVVFLICGLPFG 240  
 QY 234 IQWALFSRHLDMKVLFCVHVLVSIPLSAINSSANPIIYFVGSFRORONRN--LKLVL 291  
 DB 241 IQWFLILMIWKSDVLFCHIHPIVSVLSINSSANPIIYFVGSFRKQWRLQOPILKAL 300  
 QY 292 QRALODTPPVDECGWLPOETTELGSKL 320  
 DB 301 QRALODIAEVDSHSGCFROGTPEMSRSSL 329

Search completed: February 3, 2006, 20:31:22  
 Job time : 253 secs

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OM protein - protein search, using sw model

Run on: February 3, 2006, 20:31:39 ; Search time 49 Seconds  
(without alignments)  
543,297 Million cell updates/sec

Title: US-10-747-702-3

Perfect score: 1691  
Sequence: 1 MDPTIPVLGKLTLPINGREE.....EGGGWLPQETLELGSKLEQ 322

Scoring table: BIOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 572060 seqs, 82675679 residues

Total number of hits satisfying chosen parameters: 572060

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-Processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

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3: /cgn2\_6/prodata/1/iaa/7.COMB.pep: \*  
4: /cgn2\_6/prodata/1/iaa/PCTUS.COMB.pep: \*  
5: /cgn2\_6/prodata/1/iaa/RE.COMB.pep: \*  
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Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	1691	100.0	322	2	US-09-254-227A-3 Sequence 3, Appl1
2	1637	96.8	322	2	US-10-401-397A-2 Sequence 2, Appl1
3	1571	92.9	322	2	US-09-254-227A-5 Sequence 5, Appl1
4	1395	82.5	322	2	US-09-254-227A-7 Sequence 7, Appl1
5	1381	81.7	322	2	US-09-254-227A-9 Sequence 9, Appl1
6	1373	81.2	322	2	US-10-314-048A-20 Sequence 20, Appl1
7	1365	80.7	322	2	US-09-254-227A-13 Sequence 13, Appl1
8	1356	80.2	322	2	US-09-254-227A-11 Sequence 11, Appl1
9	978.5	57.9	330	2	US-10-314-048A-30 Sequence 30, Appl1
10	815.5	48.2	337	2	US-09-254-227A-1 Sequence 1, Appl1
11	510	30.2	321	2	US-10-314-048A-10 Sequence 10, Appl1
12	415.5	24.6	325	6	5320941-2 Patent No. 5320941
13	386.5	22.9	282	1	US-08-118-270-52 Sequence 52, Appl1
14	386.5	22.9	282	4	PCT-US93-08528-52 Sequence 52, Appl1
15	340.5	20.1	298	1	US-08-118-270-76 Sequence 76, Appl1
16	340.5	20.1	298	4	PCT-US93-08528-76 Sequence 76, Appl1
17	250.5	14.8	395	2	US-08-981-825-6 Sequence 6, Appl1
18	250.5	14.8	395	2	US-09-480-784-6 Sequence 6, Appl1
19	236.5	14.0	354	1	US-07-759-568-2 Sequence 2, Appl1
20	222.5	13.2	369	1	US-07-816-283-8 Sequence 8, Appl1
21	222.5	13.2	369	1	US-08-417-103-8 Sequence 8, Appl1
22	222.5	13.2	369	1	US-08-411-859-3 Sequence 3, Appl1
23	222.5	13.2	369	2	US-08-120-601B-9 Sequence 9, Appl1
24	222.5	13.2	369	2	US-08-387-707-9 Sequence 9, Appl1
25	222.5	13.2	369	2	US-08-405-271A-9 Sequence 9, Appl1
26	215.5	12.7	355	1	US-07-759-568-1 Sequence 1, Appl1
27	215.5	12.7	355	1	US-08-450-393A-8 Sequence 8, Appl1

28	215.5	12.7	355	1	US-08-390-000A-5 Sequence 5, Appl1
29	215.5	12.7	355	2	US-08-446-669-8 Sequence 8, Appl1
30	215.5	12.7	355	2	US-09-625-573-8 Sequence 8, Appl1
31	215.5	12.7	355	4	PCT-US95-00476-8 Sequence 8, Appl1
32	215.5	12.7	360	1	US-08-202-056-7 Sequence 7, Appl1
33	215.5	12.7	360	2	US-09-409-778-4 Sequence 4, Appl1
34	214	12.7	351	2	US-09-944-807-2 Sequence 2, Appl1
35	214	12.7	351	2	US-09-826-509-501 Sequence 501, App
36	206.5	12.2	355	2	US-09-170-496D-2 Sequence 2, Appl1
37	206	12.2	381	2	US-09-745-842-21 Sequence 21, Appl1
38	205	12.1	259	2	US-09-261-599B-3 Sequence 3, Appl1
39	205	12.1	259	2	US-09-456-455A-3 Sequence 3, Appl1
40	205	12.1	380	2	US-08-676-351-5 Sequence 5, Appl1
41	204	12.1	353	2	US-09-576-160B-6 Sequence 6, Appl1
42	203.5	12.0	369	1	US-07-816-283-6 Sequence 6, Appl1
43	203.5	12.0	369	1	US-08-417-103-6 Sequence 6, Appl1
44	203.5	12.0	369	1	US-08-417-103-16 Sequence 16, Appl1
45	202.5	12.0	355	2	US-09-170-496D-164 Sequence 164, App

ALIGNMENTS

RESULT 1									
US-09-254-227A-3									
Sequence 3, Application US/09254227A									
Patent No. 6696257									
GENERAL INFORMATION:									
APPLICANT: Ahmed, Sultan									
APPLICANT: Banville, Denis									
APPLICANT: Fortin, Yves									
APPLICANT: Lembo, Paola									
APPLICANT: O'Donnell, Dajan									
APPLICANT: Shi-Hsiang, Shen									
TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human									
FILE REFERENCE: 81823/26817									
CURRENT APPLICATION NUMBER: US/09/254, 227A									
CURRENT FILING DATE: 1999-03-03									
NUMBER OF SEQ ID NOS: 22									
SOFTWARE: Patentin version 3.0									
SEQ ID NO 3									
LENGTH: 322									
TYPE: PRT									
ORGANISM: Homo sapiens									
US-09-254-227A-3									
Query Match									
Best Local Similarity 100.0%; Pred. No. 8,4e-138; Length 322;									
Matches 322; Conservative 0; Mismatches 0; Indels 0; Gaps 0;									
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DB	1	MDPTIPVLGKLTLPINGRETCVNOTLSPTGLTCTISLVALTGNAVVLGCRMRNA	60						
QY	61	VSIIYIILVAANFLFLSGHIIIFSPPLINIRHPIISKILSPVMTFPYFISLSAISTRE	120						
DB	61	VSIIYIILVAANFLFLSGHIIIFSPPLINIRHPIISKILSPVMTFPYFISLSAISTRE	120						
QY	121	CISILMPFYHGRPRPYLSSVNCVLIMASLSRIEMFPCDFLFGANSVWCETSDFTT	180						
DB	121	CISILMPFYHGRPRPYLSSVNCVLIMASLSRIEMFPCDFLFGANSVWCETSDFTT	180						
QY	181	IMLVFLCVLLGSSSLVLRILCGSRKMPRLRYTILITVLPFLCGIPFGIOVALPS	240						
DB	181	IMLVFLCVLLGSSSLVLRILCGSRKMPRLRYTILITVLPFLCGIPFGIOVALPS	240						
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DB	241	RHLDMKVLFCVHLVSIPLSALNSANPIYFFVGSFRORONRNLKVLORALDTPR	300						
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DB	301	VDEGGGWLPOETLELGSKLEQ 322							

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RESULT 2
US-10-401-397A-2
; Sequence 2, Application US/10401397A
; Patent No. 6864239
; GENERAL INFORMATION:
; APPLICANT: Peri, Krishna G.
; APPLICANT: Moffett, Serge
; APPLICANT: Aburan, Daniel
; TITLE OF INVENTION: METHODS AND COMPOUNDS FOR PREVENTION AND TREATMENT OF ELEVATED
; FILE REFERENCE: 4518/1M674U51
; CURRENT APPLICATION NUMBER: US/10/401,397A
; CURRENT FILING DATE: 2003-03-27
; PRIOR APPLICATION NUMBER: US 60/367,513
; PRIOR FILING DATE: 2002-03-27
; NUMBER OF SEQ ID NOS: 8
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 2
; LENGTH: 322
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-401-397A-2

Query Match
Best Local Similarity 96.8%; Score 1637; DB 2; Length 322;
Matches 312; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

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DB 61 VSIYIINLVAAADFLFSGHILCSPLRLINIRHPIKILSPVMTFPYFGLSMIASTER 120
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DB 121 CTSILMPWYHGRPRYLSVWCVLMALSLRSILEMFCDFLFGSANSVWCETSDFIT 180
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DB 181 IAMLVFLCVVLCGSSLVLLVRLICGSRKMPRLRYVTILLTVLVFLLCGLPGIQWALFS 240
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DB 241 RIHLDMKVLFCVHVLVSIPLSALNSANPIYFVGSFRORONKVLQALODTPE 300
QY 241 RIHLDMKVLFCVHVLVSIPLSALNSANPIYFVGSFRORONKVLQALODTPE 300
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QY 301 VDEGGMLPOETLELSGSKLEQ 322
DB 301 VDEGGMLPOETLELSGSKLEQ 322

RESULT 3
US-09-254-227A-5
; Sequence 5, Application US/09254227A
; Patent No. 6696257
; GENERAL INFORMATION:
; APPLICANT: Ahmad, Sultan
; APPLICANT: Banville, Denis
; APPLICANT: Fortin, Yves
; APPLICANT: Lembo, Paola
; APPLICANT: O'Donnell, Dajan
; APPLICANT: Shi-Hsiang, Shen
; TITLE OF INVENTION: G protein-Coupled Receptors from the Rat and Human
; FILE REFERENCE: 81823/268117
; CURRENT APPLICATION NUMBER: US/09/254,227A
; CURRENT FILING DATE: 1999-03-03
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: Patentin version 3.0
; SEQ ID NO 5
; LENGTH: 322
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; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-254-227A-5

Query Match
Best Local Similarity 92.9%; Score 1571; DB 2; Length 322;
Matches 302; Conservative 8; Mismatches 11; Indels 0; Gaps 0;

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QY 61 VSIYIINLVAAADFLFSGHILCSPLRLINIRHPIKILSPVMTFPYFGLSMIASTER 120
DB 61 VSIYIINLVAAADFLFSGHILCSPLRLINIRHPIKILSPVMTFPYFGLSMIASTER 120
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QY 121 CTSILMPWYHGRPRYLSVWCVLMALSLRSILEMFCDFLFGSANSVWCETSDFIT 180
DB 121 CTSILMPWYHGRPRYLSVWCVLMALSLRSILEMFCDFLFGSANSVWCETSDFIT 180
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QY 241 RIHLDMKVLFCVHVLVSIPLSALNSANPIYFVGSFRORONKVLQALODTPE 300
DB 241 RIHLDMKVLFCVHVLVSIPLSALNSANPIYFVGSFRORONKVLQALODTPE 300
QY 301 VDEGGMLPOETLELSGSKLE 321
DB 301 VDEGGMLPOETLELSGSKLE 321

RESULT 4
US-09-254-227A-7
; Sequence 7, Application US/09254227A
; Patent No. 6696257
; GENERAL INFORMATION:
; APPLICANT: Ahmad, Sultan
; APPLICANT: Banville, Denis
; APPLICANT: Fortin, Yves
; APPLICANT: Lembo, Paola
; APPLICANT: O'Donnell, Dajan
; APPLICANT: Shi-Hsiang, Shen
; TITLE OF INVENTION: G protein-Coupled Receptors from the Rat and Human
; FILE REFERENCE: 81823/268117
; CURRENT APPLICATION NUMBER: US/09/254,227A
; CURRENT FILING DATE: 1999-03-03
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: Patentin version 3.0
; SEQ ID NO 7
; LENGTH: 322
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-254-227A-7

Query Match
Best Local Similarity 82.5%; Score 1395; DB 2; Length 322;
Matches 265; Conservative 24; Mismatches 33; Indels 0; Gaps 0;

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QY 61 VSIYIINLVAAADFLFSGHILCSPLRLINIRHPIKILSPVMTFPYFGLSMIASTER 120
DB 61 VSIYIINLVAAADFLFSGHILCSPLRLINIRHPIKILSPVMTFPYFGLSMIASTER 120
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QY 121 CTSILMPWYHGRPRYLSVWCVLMALSLRSILEMFCDFLFGSANSVWCETSDFIT 180
DB 121 CTSILMPWYHGRPRYLSVWCVLMALSLRSILEMFCDFLFGSANSVWCETSDFIT 180
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      241 WIHVDREVLFCVHLVSIPLSALNSSANPIYFFVGSFRORORONKIVLQRALDPTPE 300
Qy      301 VDEGGMLPQETLELSGSKLEQ 322
      301 VDEGGMLPQETLELSGSKLEQ 322
Db      301 VDEGGMLPQETLELSGSKLEQ 322
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## RESULT 5

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US-09-254-227A-9
; Sequence 9, Application US/09254227A
; Patent No. 6696257
; GENERAL INFORMATION:
; APPLICANT: Ahmad, Sultan
; APPLICANT: Banville, Denis
; APPLICANT: Fortin, Yves
; APPLICANT: Lembo, Paola
; APPLICANT: O'Donnell, Dajan
; APPLICANT: Shi-Hsiang, Shen
; TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human
; FILE REFERENCE: 81823/268117
; CURRENT APPLICATION NUMBER: US/09/254, 227A
; CURRENT FILING DATE: 1999-03-03
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: Patentin version 3.0
; SEQ ID NO 9
; LENGTH: 322
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-254-227A-9
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Query Match      81.7%; Score 1381; DB 2; Length 322;
Best Local Similarity 82.3%; Pred. No. 4e-11;
Matches 265; Conservative 22; Mismatches 35; Indels 0; Gaps 0;
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      1 MDPTIPVGLTKLTPINGREBTPCYNOTLSFTGLTCIISVALTGNVAVMLLGCRRRNA 60
Db      1 MDPTIPVGLTKLTPINGREBTPCYNOTLSFTGLTCIISVALTGNVAVMLLGCRRRNA 60
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      61 FSIYIINLVANLPLFSGHIIIPSPPLINIRHPIISKILSPWMTFPYFIGLSMISAISTER 120
Db      61 FSIYIINLVANLPLFSGHIIIPSPPLINIRHPIISKILSPWMTFPYFIGLSMISAISTER 120
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Db      121 CUSILMPWYHCRPRYLSVWCVLIMALSILRSILEMFCDFLFGSANSVWCETSDPFT 180
Qy      181 IAMLVFLCVLCCSSLVLLIRILCGSRKIPLTRLYVTILLTVLVFLCGIPFGIQLFL 240
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Db      181 IAMLVFLCVLCCSSLVLLIRILCGSRKIPLTRLYVTILLTVLVFLCGIPFGIQLFL 240
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      241 RIHLDMKVFCHVHLVSIPLSALNSSANPIYFFVGSFRORORONKIVLQRALDPTPE 300
Db      241 RIHLDMKVFCHVHLVSIPLSALNSSANPIYFFVGSFRORORONKIVLQRALDPTPE 300
Qy      301 VDEGGMLPQETLELSGSKLEQ 322
      301 VDEGGMLPQETLELSGSKLEQ 322
Db      301 VDEGGMLPQETLELSGSKLEQ 322
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## RESULT 6

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US-10-314-048A-20
; Sequence 20, Application US/10314048A
; Patent No. 6902902
; GENERAL INFORMATION:
; APPLICANT: Unect, David J.
; APPLICANT: Chen, Kuoping
; APPLICANT: Richman, Jeremy
; APPLICANT: Connolly, Daniel
```

```
; APPLICANT: Dang, Hung T.
; APPLICANT: Choi, Bryan
; APPLICANT: Leonard, James
; APPLICANT: Hakak, Yaron
; APPLICANT: Liaw, Chen
; APPLICANT: Lowitz, Kevin P.
; APPLICANT: Behan, Dominic P.
; APPLICANT: Chalmers, Derek T.
; APPLICANT: Leimer, Michael
; TITLE OF INVENTION: Human G Protein-Coupled Receptors and Modulators Thereof
; TITLE OF INVENTION: for the Treatment of Metabolic-Related Disorders
; FILE REFERENCE: 22 US6 CIP
; CURRENT APPLICATION NUMBER: US/10/314, 048A
; CURRENT FILING DATE: 2002-12-06
; PRIOR APPLICATION NUMBER: 10/096, 511
; PRIOR FILING DATE: 2002-03-12
; PRIOR APPLICATION NUMBER: 09/995, 543
; PRIOR FILING DATE: 2001-11-27
; PRIOR APPLICATION NUMBER: 60/399, 917
; PRIOR FILING DATE: 2002-07-29
; PRIOR APPLICATION NUMBER: 60/404, 761
; PRIOR FILING DATE: 2002-08-19
; PRIOR APPLICATION NUMBER: 60/410, 747
; PRIOR FILING DATE: 2002-09-13
; NUMBER OF SEQ ID NOS: 161
; SOFTWARE: Patentin version 3.1
; SEQ ID NO 20
; LENGTH: 322
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-314-048A-20
```

```
Query Match      81.2%; Score 1373; DB 2; Length 322;
Best Local Similarity 82.0%; Pred. No. 1.9e-110;
Matches 264; Conservative 22; Mismatches 36; Indels 0; Gaps 0;
```

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Qy      1 MDPTIPVGLTKLTPINGREBTPCYNOTLSFTGLTCIISVALTGNVAVMLLGCRRRNA 60
      1 MDPTIPVGLTKLTPINGREBTPCYNOTLSFTGLTCIISVALTGNVAVMLLGCRRRNA 60
Db      1 MDPTIPVGLTKLTPINGREBTPCYNOTLSFTGLTCIISVALTGNVAVMLLGCRRRNA 60
Qy      61 VSIYIINLVANLPLFSGHIIIPSPPLINIRHPIISKILSPWMTFPYFIGLSMISAISTER 120
      61 FSIYIINLVANLPLFSGHIIIPSPPLINIRHPIISKILSPWMTFPYFIGLSMISAISTER 120
Db      61 FSIYIINLVANLPLFSGHIIIPSPPLINIRHPIISKILSPWMTFPYFIGLSMISAISTER 120
Qy      121 CUSILMPWYHCRPRYLSVWCVLIMALSILRSILEMFCDFLFGSANSVWCETSDPFT 180
      121 CUSILMPWYHCRPRYLSVWCVLIMALSILRSILEMFCDFLFGSANSVWCETSDPFT 180
Db      121 CUSILMPWYHCRPRYLSVWCVLIMALSILRSILEMFCDFLFGSANSVWCETSDPFT 180
Qy      181 IAMLVFLCVLCCSSLVLLIRILCGSRKIPLTRLYVTILLTVLVFLCGIPFGIQLFL 240
      181 IAMLVFLCVLCCSSLVLLIRILCGSRKIPLTRLYVTILLTVLVFLCGIPFGIQLFL 240
Db      181 IAMLVFLCVLCCSSLVLLIRILCGSRKIPLTRLYVTILLTVLVFLCGIPFGIQLFL 240
Qy      241 RIHLDMKVFCHVHLVSIPLSALNSSANPIYFFVGSFRORORONKIVLQRALDPTPE 300
      241 RIHLDMKVFCHVHLVSIPLSALNSSANPIYFFVGSFRORORONKIVLQRALDPTPE 300
Db      241 RIHLDMKVFCHVHLVSIPLSALNSSANPIYFFVGSFRORORONKIVLQRALDPTPE 300
Qy      301 VDEGGMLPQETLELSGSKLEQ 322
      301 VDEGGMLPQETLELSGSKLEQ 322
Db      301 VDEGGMLPQETLELSGSKLEQ 322
```

## RESULT 7

```
US-09-254-227A-13
; Sequence 13, Application US/09254227A
; Patent No. 6696257
; GENERAL INFORMATION:
; APPLICANT: Ahmad, Sultan
; APPLICANT: Banville, Denis
; APPLICANT: Fortin, Yves
; APPLICANT: Lembo, Paola
; APPLICANT: O'Donnell, Dajan
; APPLICANT: Shi-Hsiang, Shen
; TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human
```

FILE REFERENCE: 81823/268117  
CURRENT APPLICATION NUMBER: US/09/254,227A  
CURRENT FILING DATE: 1999-03-03  
NUMBER OF SEQ ID NOS: 22  
SOFTWARE: PatentIn version 3.0  
SEQ ID NO 13  
LENGTH: 322  
TYPE: PRT  
ORGANISM: Homo sapiens  
US-09-254-227A-13

Query Match 80.7%; Score 1365; DB 2; Length 322;  
Best Local Similarity 83.1%; Pred. No. 9,4e-110;  
Matches 266; Conservative 20; Mismatches 34; Indels 0; Gaps 0;

QY 1 MDPTIVLGTCTLPINGREETPCYNOTLSFTGLTCTISVALTGNVAVLMLGCRMRNA 60  
DB 1 MDPTVVFQGTCTLPINGREETPCYNOTLSFTVLTCTISLVLGTVGNVAVLMLGCRMRNA 60  
QY 61 VSIYIINLVANFLPLSGHIIIFSPPLINIRHPIKILSVWTFPPYFGLSMLSAISTER 120  
DB 61 VSIYIINLVANFLPLSGHIIIFSPPLINIRHPIKILSVWTFPPYFGLSMLSAISTER 120  
QY 121 CLSIIMPWYHCRPRRYSSVWCVLIMALSILRSILEMFCDFLFGANSWCETSDFT 180  
DB 121 CLSVLMPIWYRCRPHLSAVVCVLLMGSLILFSMLEMFCDFLFGADSWCETSDFT 180  
QY 181 IMLVFLCVVLCGSSVLVLRILCGSRKMPRLRLVYTLITLVVFLCGLPGGIOWALFS 240  
DB 181 VVMLJFLCVVLCVSSVLVLRILCGSRKMPRLRLVYTLITLVVFLCGLPGGIOWALFS 240  
QY 241 RIHLDMKVLFCVHLVSIPLSALNSSANPIYFVGSFRQRONRQMLKVLQRLADTPE 300  
DB 241 RHLNLEVLVCHVYLVCMSLSSANPIYFVGSFRQRONRQMLKVLQRLADTPE 300  
QY 301 VDEGGMLPQETLELSGSKL 320  
DB 301 VDKGEGQLPEESLELSGSKL 320

RESULT 8  
US-09-254-227A-11  
Sequence 11, Application US/09254227A  
Patent No. 6696257  
GENERAL INFORMATION:  
APPLICANT: Ahmad, Sulcan  
APPLICANT: Banville, Denis  
APPLICANT: Fortin, Yves  
APPLICANT: Lembo, Paola  
APPLICANT: O'Donnell, Dajan  
APPLICANT: Shi-Hsiang, Shen  
TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human  
FILE REFERENCE: 81823/268117  
CURRENT APPLICATION NUMBER: US/09/254,227A  
CURRENT FILING DATE: 1999-03-03  
NUMBER OF SEQ ID NOS: 22  
SOFTWARE: PatentIn version 3.0  
SEQ ID NO 11  
LENGTH: 322  
TYPE: PRT  
ORGANISM: Homo sapiens  
US-09-254-227A-11

Query Match 80.2%; Score 1356; DB 2; Length 322;  
Best Local Similarity 82.5%; Pred. No. 5.6e-109;  
Matches 264; Conservative 21; Mismatches 35; Indels 0; Gaps 0;

QY 1 MDPTIVLGTCTLPINGREETPCYNOTLSFTGLTCTISVALTGNVAVLMLGCRMRNA 60  
DB 1 MDPTVVFQGTCTLPINGREETPCYNOTLSFTVLTCTISLVLGTVGNVAVLMLGCRMRNA 60  
QY 61 VSIYIINLVANFLPLSGHIIIFSPPLINIRHPIKILSVWTFPPYFGLSMLSAISTER 120  
DB 61 VSIYIINLVANFLPLSGHIIIFSPPLINIRHPIKILSVWTFPPYFGLSMLSAISTER 120

DB 61 VSIYIINLVANFLPLSGHIIIFSPPLINIRHPIKILSVWTFPPYFGLSMLSAISTER 120  
QY 121 CLSIIMPWYHCRPRRYSSVWCVLIMALSILRSILEMFCDFLFGANSWCETSDFT 180  
DB 121 CLSVLMPIWYRCRPHLSAVVCVLLMGSLILFSMLEMFCDFLFGADSWCETSDFT 180  
QY 181 IMLVFLCVVLCGSSVLVLRILCGSRKMPRLRLVYTLITLVVFLCGLPGGIOWALFS 240  
DB 181 VVMLJFLCVVLCVSSVLVLRILCGSRKMPRLRLVYTLITLVVFLCGLPGGIOWALFS 240  
QY 241 RIHLDMKVLFCVHLVSIPLSALNSSANPIYFVGSFRQRONRQMLKVLQRLADTPE 300  
DB 241 RHLNLEVLVCHVYLVCMSLSSANPIYFVGSFRQRONRQMLKVLQRLADTPE 300  
QY 301 VDEGGMLPQETLELSGSKL 320  
DB 301 VDKGEGQLPEESLELSGSKL 320

RESULT 9  
US-10-314-048A-30  
Sequence 30, Application US/10314048A  
Patent No. 6902902  
GENERAL INFORMATION:  
APPLICANT: Umec, David J.  
APPLICANT: Chen, Ruoping  
APPLICANT: Richman, Jeremy  
APPLICANT: Connolly, Daniel  
APPLICANT: Dang, Huang T.  
APPLICANT: Choi, Bryan  
APPLICANT: Leonard, James  
APPLICANT: Hakak, Yaron  
APPLICANT: Liaw, Chen  
APPLICANT: Lowitz, Kevin P.  
APPLICANT: Behan, Dominic P.  
APPLICANT: Chalmers, Derek T.  
APPLICANT: Letner, Michael  
TITLE OF INVENTION: Human G Protein-Coupled Receptors and Modulators Thereof  
FILE REFERENCE: 22 US6, CIP  
CURRENT APPLICATION NUMBER: US/10/314,048A  
CURRENT FILING DATE: 2002-12-06  
PRIOR APPLICATION NUMBER: 10/096,511  
PRIOR FILING DATE: 2002-03-12  
PRIOR APPLICATION NUMBER: 09/995,543  
PRIOR FILING DATE: 2001-11-27  
PRIOR APPLICATION NUMBER: 60/399,917  
PRIOR FILING DATE: 2002-07-29  
PRIOR APPLICATION NUMBER: 60/404,761  
PRIOR FILING DATE: 2002-08-19  
PRIOR APPLICATION NUMBER: 60/410,747  
PRIOR FILING DATE: 2002-09-13  
NUMBER OF SEQ ID NOS: 161  
SOFTWARE: PatentIn version 3.1  
SEQ ID NO 30  
LENGTH: 330  
TYPE: PRT  
ORGANISM: Homo sapiens  
US-10-314-048A-30

Query Match 57.9%; Score 978.5; DB 2; Length 330;  
Best Local Similarity 62.3%; Pred. No. 1.7e-76;  
Matches 205; Conservative 29; Mismatches 86; Indels 9; Gaps 3;

QY 1 MDPTIVLGTCTLPINGREETPCYNOTLSFTGLTCTISVALTGNVAVLMLGCRMR 57  
DB 1 MDPTVVFQGTCTLPINGREETPCYNOTLSFTVLTCTISLVLGTVGNVAVLMLGCRMR 60  
QY 58 RNAFSYVVLSTAGADLFLCQIINCLVYLSNFCGISINFPSFTTVMTCVLAGLSML 113  
DB 61 RNAFSYVVLSTAGADLFLCQIINCLVYLSNFCGISINFPSFTTVMTCVLAGLSML 120  
QY 114 SAISTERCLSIIMPWYHCRPRRYSSVWCVLIMALSILRSILEMFCDFLFGANSWC 173

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Db 121 STVSTERCLSVLWPIWRCRPRHLSAVCVLLMALSLLSILEGKCGFLFSDGSGMC 180
Qy 174 ETSDFITIAMLVLCVVLGSSVLVRLICGSRKMPRLTYTILTLTVLVPFLCGLPFG 233
Db 181 QTFDFTIAMLVLFVWLGCSSLALVRLICGSRGLTILTYLTLTVLVPFLCGLPFG 240
Qy 234 IOWALFSRIHLDWKVLFCHVLVSIPLSALNSSANPIIYFVGSFRQORON--LKLVL 291
Db 241 IOWFLILWIMKSDVLFCHHPIVSVLSSANPIIYFVGSFRQORMLQGPILKAL 300
Qy 292 ORALODTPEVDEGGWLPQETLESGSKL 320
Db 301 ORALODIAEVDSHGCGFRQCTPEMSRSSL 329
```

```
RESULT 10
US-09-254-227A-1
; Sequence 1, Application US/09254227A
; Patent No. 6696257
; GENERAL INFORMATION:
; APPLICANT: Ahmad, Sulhan
; APPLICANT: Banville, Denis
; APPLICANT: Fortin, Yves
; APPLICANT: Lembo, Paola
; APPLICANT: O'Donnell, Dajan
; APPLICANT: Shi-Heiang, Shen
; TITLE OF INVENTION: G Protein-Coupled Receptors from the Rat and Human
; FILE REFERENCE: 81823/268117
; CURRENT APPLICATION NUMBER: US/09/254,227A
; NUMBER OF SEQ ID NOS: 22
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 1
; LENGTH: 337
; TYPE: PRT
; ORGANISM: rat
US-09-254-227A-1
```

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Query Match 48.2%; Score 815.5; DB 2; Length 337;
Best Local Similarity 53.4%; Pred. No. 1,9e-62;
Matches 173; Conservative 50; Mismatches 88; Indels 13; Gaps 7;
Qy 1 MDPTIPLVGLTKLPINGREBETPCYN-QTISFTGTCISLVALTGNVAVLMLGCRMRN 59
Db 15 MDPTISLSREESTLTKTGHPSCRPIITLSF--LVPIITLGLAGTIYVLMIGFRMRK 72
Qy 60 AVSIYILNIVANFLPLSGHIIFFSPLPLNI---RHPISK-IISPVMTPPYFGLSMLS 114
Db 73 AISVYVNLISLADSPFLCCHFDISLKRIMNFYGIYAHKLSKEILGNVAFIPIYSGLSILS 132
Qy 115 AISTECLSLWPIWYHCRPRYLSSVMCVLMLALSILRSILEMFCDFLFGSANSWCCE 174
Db 133 AISTECLSLWPIWYHCRPRYLSSVMCVLMLALSILRSILEMFCDFLFGSANSWCCE 191
Qy 175 TSDPFIAMLVPCVVLGSSVLVRLICGSRKMPRLTYTILTLTVLVPFLCGLPFGI 234
Db 192 NNDPFIATPLIFPLMLFGSSLALVRLICGSRKRLRYTISLTVMYVLLCGLPGL 251
Qy 235 QVAL--FSRIHLDWKVLFCHVLVSIPLSALNSSANPIIYFVGSFRQORONLKLVLQ 292
Db 252 YLFLLYWFGLHLYP--FCHIIQVTVLSSCVNSANPIIYFVGSFRHRRKHSLSKMLK 309
Qy 293 RALQDTPPEVDEGGWLPQETLELS 316
Db 310 RALETPPEDEYTDHSHVQKPEIS 333
```

```
RESULT 11
US-10-314-048A-10
; Sequence 10, Application US/10314048A
; Patent No. 6902902
; GENERAL INFORMATION:
```

```
; APPLICANT: Umetc, David J.
; APPLICANT: Chen, Ruoping
; APPLICANT: Richman, Jeremy
; APPLICANT: Connolly, Daniel
; APPLICANT: Dang, Huang T.
; APPLICANT: Choi, Bryan
; APPLICANT: Leonard, James
; APPLICANT: Hakak, Yaron
; APPLICANT: Liaw, Chen
; APPLICANT: Lowitz, Kevin P.
; APPLICANT: Behan, Dominic P.
; APPLICANT: Chalmer, Derek T.
; APPLICANT: Lerner, Michael
; TITLE OF INVENTION: Human G Protein-Coupled Receptors and Modulators Thereof
; FILE REFERENCE: 22 US6 CIP
; CURRENT APPLICATION NUMBER: US/10/314,048A
; CURRENT FILING DATE: 2002-12-06
; PRIOR APPLICATION NUMBER: 10/096,511
; PRIOR FILING DATE: 2002-03-12
; PRIOR APPLICATION NUMBER: 09/995,543
; PRIOR FILING DATE: 2001-11-27
; PRIOR APPLICATION NUMBER: 60/399,917
; PRIOR FILING DATE: 2002-07-29
; PRIOR APPLICATION NUMBER: 60/404,761
; PRIOR FILING DATE: 2002-08-19
; PRIOR APPLICATION NUMBER: 60/410,747
; PRIOR FILING DATE: 2002-09-13
; NUMBER OF SEQ ID NOS: 161
; SOFTWARE: PatentIn version 3.1
; SEQ ID NO 10
; LENGTH: 321
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-314-048A-10
```

```
Query Match 30.2%; Score 510; DB 2; Length 321;
Best Local Similarity 40.3%; Pred. No. 3,4e-36;
Matches 127; Conservative 57; Mismatches 115; Indels 16; Gaps 9;
Qy 1 MDPTIPLVGLTKLPINGREBETPCYNQTLSTFTGTCISLVALTGNVAVLMLGCRMRN 60
Db 1 MNQTLNLSGTVESALNYSRSTVHTAVLVLSILAMFTCCGMAAGNSVWVIMLGFRRHRNP 60
Qy 61 VSIYIILNIVANFLPL--SGHIIFFSPLPLNIHRHPISKILSPVMTPPYFGLSMLS 117
Db 61 PCLYIILNLAADLPLFPMASSTLSLETQPLVNTTDXVHELMKRLMFAIVYGLSLALIS 120
Qy 118 TERCLSLWPIWYHCRPRYLSSVMCVLMLALSILRSILEMFCDFLFGSANSWCETSD 177
Db 121 TORCLSLVLPIMWKCHRPRLSLMWVGLMTLCLLNLNGLTSSFCs-KFLKFNDRCPYVD 179
Qy 178 FITIAMLV-FLCVVLGSSVLVRLICGS--RKMPRLRYTITLTVLVPFLCGLPFG 233
Db 180 MVQALIMGVLPVMTLSLTLLFVWVRSSQWRROP--RLFVVLVASVLPFLICSLPS 238
Qy 234 IOWALFSRIHLD--DWVLFCHVLVSIPLSALNSSANPIIYFVGSFR--QORORONLKLVL 290
Db 239 IYFVLVWLSLPEWQVLCPSLRSLs--SSVSSANPIIYFVGSFRHRRHRLPTRSLGTY 295
Qy 291 LQRALQDTPPEVDEGG 305
Db 296 LQALAREPEL--EGG 309
```

```
RESULT 12
5320941-2
; Patent No. 5320941
; APPLICANT: Young, Dalian;Wigler, Michael H.;Pasano
; TITLE OF INVENTION: DNA SEQUENCES ENCODING WAS ONHOGENE,
; POLYPEPTIDES ENCODED THEREFROM AND DIAGNOSTIC AND OTHER METHODS
; BASED THEREFROM
```

NUMBER OF SEQUENCES: 2  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/06/872,087  
FILING DATE: 06-JUN-1986  
SEQ ID NO: 2  
LENGTH: 325  
5320941-2

Query Match 24.6%; Score 415.5; DB 6; Length 325;  
Best Local Similarity 34.1%; Pred. No. 4,7e-28;  
Matches 105; Conservative 64; Mismatches 112; Indels 27; Gaps 7;

QY 2 DPTIPVLTGKLPINGREBTPCYNOTLSFTGLTCIISLVALGNVAVLMLGCRMRNAV 61  
DB 13 EPTNISTGNASVGNHROIPIVHWI-----MSISPVGVENGILLWFLCFRMRNPF 66  
QY 62 SYIINLVANFLFSLGHIIFS-----PLPINIRPIKILSPWTFPPYFGLSLSAI 116  
DB 67 TVYITHLSIADISLFCIFILSIDVALDYELSSGHYYTIVTSLVTELPFGINTGLYLTAI 126  
QY 117 STERCISLMPVWYHGRPRVYSSVMCVLLMALSLRSILEMWFCDPLFSGANSVCETS 176  
DB 127 STERCISLMPVWYHGRPRVYSSVMCVLLMALSLRSILEMWFCDPLFSGANSVCETS 182  
QY 177 D-----FTTI-AMLVLCVLCGSSLVLLVRLICSSRKMPILRLYVTLITLVFLCG 229  
DB 183 DCPAVIIFALISFLVFTGLMLV-SSITLVVKIKPMTWASHSSKLYIVMTIIFLI-- 239  
QY 230 LPPGIOMALFSRIHDMKVLFCVHLVSLFSLANSSANPIYFPVGSFRORNRQNLK 289  
DB 240 --FAKMRLLYLLYVEYSTFGNLHDSILFSTINSSANPIYFPVGSFKKRFKSLK 297  
QY 290 VLGRALOD 297  
DB 298 VTTTRAFKD 305

## RESULT 13

US-08-118-270-52  
Sequence 52, Application US/08118270  
Patent No. 5508384  
GENERAL INFORMATION:  
APPLICANT: Murphy, Randall B.  
APPLICANT: Schuster, David I.  
TITLE OF INVENTION: POLYPEPTIDES OF G-COUPLED PROTEIN  
TITLE OF INVENTION: RECEPTORS, AND COMPOSITIONS AND METHODS THEREOF  
NUMBER OF SEQUENCES: 348  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: BROWDY AND NEIMARK  
STREET: 419 Seventh Street, N.W., Suite 300  
CITY: Washington  
STATE: D.C.  
COUNTRY: USA  
ZIP: 20004  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Releasee #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: US/08/118,270  
FILING DATE: 09-SEP-1993  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/943,236  
FILING DATE: 10-SEP-1992  
ATTORNEY/AGENT INFORMATION:  
NAME: Townsend, Kevin G.  
REGISTRATION NUMBER: 34,033  
REFERENCE/DOCKET NUMBER: MURPHY-2A  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 202-628-5197  
TELEFAX: 202-737-3528  
TELEX: 248633

INFORMATION FOR SEQ ID NO: 52:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 282 amino acids  
TYPE: amino acid  
STRANDEDNESS: single  
TOPOLOGY: linear  
MOLECULE TYPE: peptide  
US-08-118-270-52

Query Match 22.9%; Score 386.5; DB 1; Length 282;  
Best Local Similarity 34.4%; Pred. No. 1.3e-25;  
Matches 96; Conservative 54; Mismatches 86; Indels 43; Gaps 7;

QY 37 ISLVALTGNVAVL-----LLGCRMRNAVSYILNI-VANFLFSLG 78  
DB 9 ISPVGVENGILLWFLCFPTVYTHLSIADISLFC-----IFLSIDVALDYELSSG 60  
QY 79 HIIFSLPLINIRHPIKILSPWTFPPYFGLSMLSAISTERCLSLMPVWYHGRPRYL 138  
DB 61 H-----YTVITLSVTFLEGYNTGLYLTALISVERCLSVLYIWRCHRPKIQ 108  
QY 139 SSVMCVLLMALSLRSILEMWFCDPLFSGANSVCETSDFITIAMLVFLCVLCGSSLV 198  
DB 109 SALVCAILLMALSCVLTVM-YWNCIDRFESHBRNDRAVIFIALISFLVTPSVSSTIL 167  
QY 199 LVRIICGSRKMPILRLYVTLITLVFLCGLPFGIQALFSRIHDMKVLFCVHLVSI 258  
DB 168 VVKIRNTWASHSSKLYIVIMWTIIFLI-FAMPMRLLYLYVEY--WST-FGNLHHSIL 223  
QY 259 FLSANSSANPIYFPVGSFRORNRQNLKVLGRALOD 297  
DB 224 LPSTINSSANPIYFPVGSKKRFRKESLKVLTTRAFKD 262

## RESULT 14

PCT-US93-08528-52  
Sequence 52, Application PC/TUS9308528  
GENERAL INFORMATION:  
APPLICANT: New York University  
TITLE OF INVENTION: POLYPEPTIDES OF G-COUPLED PROTEIN  
TITLE OF INVENTION: RECEPTORS, AND COMPOSITIONS AND METHODS THEREOF  
NUMBER OF SEQUENCES: 348  
CORRESPONDENCE ADDRESS:  
ADDRESSEE: BROWDY AND NEIMARK  
STREET: 419 Seventh Street, N.W., Suite 300  
CITY: Washington  
STATE: D.C.  
COUNTRY: USA  
ZIP: 20004  
COMPUTER READABLE FORM:  
MEDIUM TYPE: Floppy disk  
COMPUTER: IBM PC compatible  
OPERATING SYSTEM: PC-DOS/MS-DOS  
SOFTWARE: Patentin Releasee #1.0, Version #1.25  
CURRENT APPLICATION DATA:  
APPLICATION NUMBER: PCT/US93/08528  
FILING DATE: 09-SEP-1993  
PRIOR APPLICATION DATA:  
APPLICATION NUMBER: US 07/943,236  
FILING DATE: 10-SEP-1992  
ATTORNEY/AGENT INFORMATION:  
NAME: Townsend, Kevin G.  
REGISTRATION NUMBER: 34,033  
REFERENCE/DOCKET NUMBER: MURPHY-2 PCT  
TELECOMMUNICATION INFORMATION:  
TELEPHONE: 202-628-5197  
TELEFAX: 202-737-3528  
TELEX: 248633  
INFORMATION FOR SEQ ID NO: 52:  
SEQUENCE CHARACTERISTICS:  
LENGTH: 282 amino acids  
TYPE: amino acid  
STRANDEDNESS: single

TOPOLOGY: linear  
MOLECULE TYPE: peptide  
PCT-US93-08528-52

Query Match 22.9%; Score 386.5; DB 4; Length 282;  
Best Local Similarity 34.4%; Pred. No. 1.3e-25;  
Matches 96; Conservative 54; Mismatches 86; Indels 43; Gaps 7;

QY 37 ISLVLTGNNAVLM-----LLGCRMRNNAVSIYTLN-VAANFLGSG 78  
DB 9 ISPVGEVNGILLMFCEFTVYTHLSIADISLFC-----IFLISIDYALDYELSSG 60  
QY 79 HIFSLPLINRHPISKILSPWTPPYFGLSMLSAISTERCLSLMPWYHCRPRYL 138  
DB 61 H-----YTYIVLTVSVFLFGYNTGLYLAISVERCLSVLYPIWRCRPRKQ 108  
QY 139 SSVMCVLTMALSLRSILEMPCDPLFSGANSVWCETSDFTIAMVFLCVLGGSSLY 198  
DB 109 SALVCLALMALSLVLTVM-YVCLIDRFESHSHNDCAVIFPAISFLVTPSVSSTIL 167  
QY 199 LVRILGSRMPPLTRLYVTLTLTVLVELLGLPFGIOMALFSRIHLDWKFCHVLSIF 258  
DB 168 VVKIRKMTWASHSSKLYIVMTIIIFLIFAMPRLLYLYEY---WST-FGNLHISL 223  
QY 259 FLSALNSSANPIYFVGSFRORONRNLKVLQALOD 297  
DB 224 LFTINSSANPIYFVGSFKKRFPKESLKVLTAFKD 262

## RESULT 15

US-08-118-270-76  
Sequence 76, Application US/08118270  
Patent No. 5508384

GENERAL INFORMATION:

APPLICANT: Murphy, Randall B.

APPLICANT: Schuster, David I.

TITLE OF INVENTION: POLYPEPTIDES OF G-COUPLED PROTEIN

TITLE OF INVENTION: RECEPTORS, AND COMPOSITIONS AND METHODS THEREOF

NUMBER OF SEQUENCES: 348

CORRESPONDENCE ADDRESS:

ADDRESSEE: BROWDY AND NEIMARK

STREET: 419 Seventh Street, N.W., Suite 300

CITY: Washington

STATE: D.C.

COUNTRY: USA

ZIP: 20004

COMPUTER READABLE FORM:

MEDIUM TYPE: floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patentin Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/118,270

FILING DATE: 09-SEP-1993

PRIOR APPLICATION DATA:

APPLICATION NUMBER: US 07/943,236

FILING DATE: 10-SEP-1992

ATTORNEY/AGENT INFORMATION:

NAME: Townsend, Kevin G.

REGISTRATION NUMBER: 34,033

REFERENCE/DOCKET NUMBER: MURPHY-2A

TELECOMMUNICATION INFORMATION:

TELEPHONE: 202-628-5197

TELEFAX: 202-737-3528

TELEX: 248633

INFORMATION FOR SEQ ID NO: 76:

SEQUENCE CHARACTERISTICS:

LENGTH: 298 amino acids

TYPE: amino acid

STRANDEDNESS: single

TOPOLOGY: linear

MOLECULE TYPE: peptide

US-08-118-270-76

Query Match 20.1%; Score 340.5; DB 1; Length 298;  
Best Local Similarity 30.6%; Pred. No. 1.2e-21;  
Matches 91; Conservative 61; Mismatches 114; Indels 31; Gaps 10;

QY 36 IISLVLTGNNAVLMLLGCRMRNNAVSIYTLN-VAANFLGSGHISPLINRHP 93  
DB 8 LILCLGLVNGGLVLMFPGFSIKRTPPSIYIFPLHISADGIYFSKAV---ILLNMGTF 64  
QY 94 ISKI-----LSPVMTFPYFGLSMLSAISTERCLSLMPWYHCRPRYLSSVMCVLM 147  
DB 65 LGSFPDYVRVRSKIVGLTFPAGVSLPAISIERCVSIFPMYWRKRPKLSGVCLLM 124  
QY 148 ALSLSRIEMWPCDPLFSGANSVWCETSDFTIAMLVF-----LCVLCGSSVLVRI 202  
DB 125 LLSFLVTSIHNYFC-LLGHASGTACLANDISLIGILFPLFCPIVWLP----ILLHV 179  
QY 203 LGSRRMPPLTRLYVTLTLTVLVELLGLPFGIOMALFSRIHLDW--KVLFCVHLSIF 259  
DB 180 ECRARRORSAKLNHVLAIVSVFLVSSIVLGIWFLF-----WVFOIPAPPEYVRDL 233  
QY 260 LSLANSSANPIYFVGSFRORONRNLKVLQALODPEVDEGGWLPQE-TLEL 315  
DB 234 CICISSAKPIYFVLAGDKSQRLMEPLRVFORALDGALEPDAASTPNTVTMEM 290

Search completed: February 3, 2006, 20:33:05  
Job time : 50 secs

**This Page Blank (uspto)**

GenCore version 5.1.7  
Copyright (c) 1993 - 2006 Bioacceleration Ltd.

OM protein - protein search, using sw model

Run on: February 3, 2006, 20:43:35 ; Search time 175 Seconds  
(without alignments)  
768.806 Million cell updates/sec

Title: US-10-747-702-3

Perfect score: 1691  
Sequence: 1 MDTTIPVLGKTLTPINGRE.....EGGGWLPQETLBSGSLKQ 322

Scoring table: BLOSUM62  
Gapop 10.0 , Gapext 0.5

Searched: 1867569 seqs, 417829326 residues

Total number of hits satisfying chosen parameters: 1867569

Minimum DB seq length: 0  
Maximum DB seq length: 200000000

Post-processing: Minimum Match 0%  
Maximum Match 100%

Listing first 45 summaries

Database : Published Applications\_AA\_Main:\*

1: /cgn2\_6/prodata/1/pubppa/US07\_PUBCOMB.pep:\*

2: /cgn2\_6/prodata/1/pubppa/US08\_PUBCOMB.pep:\*

3: /cgn2\_6/prodata/1/pubppa/US09\_PUBCOMB.pep:\*

4: /cgn2\_6/prodata/1/pubppa/US10A\_PUBCOMB.pep:\*

5: /cgn2\_6/prodata/1/pubppa/US10B\_PUBCOMB.pep:\*

6: /cgn2\_6/prodata/1/pubppa/US11\_PUBCOMB.pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	1647	97.4	322	4	US-10-292-798-1274 Sequence 1274, App
2	1647	97.4	322	4	US-10-072-012-530 Sequence 530, App
3	1647	97.4	322	4	US-10-072-012-535 Sequence 535, App
4	1642	97.1	322	3	US-09-995-225-20 Sequence 20, App1
5	1642	97.1	322	3	US-09-995-225-20 Sequence 20, App1
6	1642	97.1	322	4	US-10-183-116-31 Sequence 31, App1
7	1642	97.1	322	4	US-10-225-567A-674 Sequence 674, App
8	1642	97.1	322	4	US-10-072-012-529 Sequence 529, App
9	1642	97.1	322	4	US-10-072-012-534 Sequence 534, App
10	1642	97.1	322	5	US-10-957-135-31 Sequence 31, App1
11	1642	97.1	322	6	US-11-083-611-31 Sequence 31, App1
12	1642	97.1	322	3	US-09-867-570-2 Sequence 2, App1
13	1642	97.1	560	5	US-10-505-486-104 Sequence 104, App
14	1637	96.8	322	4	US-10-401-397A-2 Sequence 2, App1
15	1637	96.8	322	5	US-10-977-810-2 Sequence 2, App1
16	1637	96.8	322	4	US-10-391-074-2 Sequence 2, App1
17	1593	94.2	314	4	US-10-319-834-79 Sequence 79, App1
18	1537	90.3	302	4	US-10-237-467-10 Sequence 10, App1
19	1375	81.3	322	5	US-10-488-523-6 Sequence 6, App1
20	1373	81.2	322	4	US-10-183-116-16 Sequence 16, App1
21	1373	81.2	322	4	US-10-079-384-4 Sequence 4, App1
22	1373	81.2	322	4	US-10-017-161-1056 Sequence 1056, App
23	1373	81.2	322	4	US-10-240-998-4 Sequence 4, App1
24	1373	81.2	322	4	US-10-321-807-20 Sequence 20, App1
25	1373	81.2	322	4	US-10-237-467-12 Sequence 12, App1
26	1373	81.2	322	4	US-10-292-798-898 Sequence 898, App
27	1373	81.2	322	4	US-10-016-248-81 Sequence 81, App1

28	1373	81.2	322	4	US-10-072-012-172 Sequence 172, App
29	1373	81.2	322	4	US-10-072-012-527 Sequence 527, App
30	1373	81.2	322	4	US-10-072-012-533 Sequence 533, App
31	1373	81.2	322	4	US-10-343-650A-44 Sequence 44, App1
32	1373	81.2	322	4	US-10-321-807-20 Sequence 20, App1
33	1373	81.2	322	4	US-10-314-048A-20 Sequence 20, App1
34	1373	81.2	322	5	US-10-481-161-2 Sequence 2, App1
35	1373	81.2	322	5	US-10-897-815-20 Sequence 20, App1
36	1373	81.2	322	5	US-10-957-135-16 Sequence 16, App1
37	1373	81.2	322	5	US-10-930-662-20 Sequence 20, App1
38	1373	81.2	322	6	US-11-083-611-16 Sequence 16, App1
39	1373	81.2	322	6	US-11-117-746-4 Sequence 4, App1
40	1373	81.2	1589	4	US-10-072-012-528 Sequence 528, App
41	1373	81.2	1589	4	US-10-072-012-532 Sequence 532, App
42	1366	80.8	322	3	US-09-995-225-18 Sequence 18, App1
43	1366	80.8	322	3	US-09-995-225-18 Sequence 18, App1
44	1366	80.8	322	4	US-10-183-116-33 Sequence 33, App1
45	1366	80.8	322	4	US-10-225-567A-689 Sequence 689, App

ALIGNMENTS

RESULT 1									
US-10-292-798-1274									
; Sequence 1274, Application US/10292798									
; Publication No. US2003025833A1									
; GENERAL INFORMATION:									
; APPLICANT: SUMA, MAKIKO									
; APPLICANT: ASAI, KIYOSHI									
; APPLICANT: AKIYAMA, YUTAKA									
; APPLICANT: ABURATANI, HIROYUKI									
; TITLE OF INVENTION: GUANOSINE TRIPHOSPHATE-BINDING PROTEIN COUPLED RECEPTORS									
; FILE REFERENCE: 084335/166									
; CURRENT APPLICATION NUMBER: US/10/292, 798									
; CURRENT FILING DATE: 2002-11-13									
; PRIOR APPLICATION NUMBER: 10/017,161									
; PRIOR FILING DATE: 2001-12-18									
; PRIOR APPLICATION NUMBER: JP 2001-246789									
; PRIOR FILING DATE: 2001-06-18									
; NUMBER OF SEQ ID NOS: 2070									
; SOFTWARE: Patent In Ver. 2.1									
; SEQ ID NO 1274									
; LENGTH: 322									
; TYPE: PRT									
; ORGANISM: Homo sapiens									
US-10-292-798-1274 *									
Query Match									
Best Local Similarity 97.4%; Score 1647; DB 4; Length 322;									
Matches 314; Conservative 4; Mismatches 4; Indels 0; Gaps 0;									
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DB	1	MDTTIPVLGKTLTPINGREBTPCYNOTLSFTGLTCTISVALTGNVVMILGCRNRNA	60						
QY	61	VSIIYIINLVAAADLFISGHITCSPLRINIRHISKILSPWTFPFYIGISMIASTER	120						
DB	61	VSIIYIINLVAAADLFISGHITCSPLRINIRHISKILSPWTFPFYIGISMIASTER	120						
QY	121	CSTILPPIWHCRPRPYLSVWCVLMAALSLRSILEMFCDFLFGANSVWCETSDPFL	180						
DB	121	CSTILPPIWHCRPRPYLSVWCVLMAALSLRSILEMFCDFLFGANSVWCETSDPFL	180						
QY	181	IAMVLVLCVLLCGSSIVLVLRILCGSRKMPRLRYTITLLTVLVLGIPGIGQALPS	240						
DB	181	IAMVLVLCVLLCGSSIVLVLRILCGSRKMPRLRYTITLLTVLVLGIPGIGQALPS	240						
QY	241	RHLDMKVLFCVHVIYSIFLSALNSSANPIYFVGSPFORORONLKVLRALODTPE	300						
DB	241	RHLDMKVLFCVHVIYSIFLSALNSSANPIYFVGSPFORORONLKVLRALODTPE	300						
QY	301	VDEGGWLPQETLBSGSLKQ	322						

Db 301 VDEGGMLPQETLELSGSRLEQ 322

RESULT 2  
US-10-072-012-530

Publication No. US20040033493A1  
GENERAL INFORMATION:  
APPLICANT: Tchernev, Velizar  
APPLICANT: Spytek, Kimberly  
APPLICANT: Zertusen, Bryan  
APPLICANT: Paturajan, Meera  
APPLICANT: Shimkets, Richard  
APPLICANT: Li, Li  
APPLICANT: Gangoli, Baha  
APPLICANT: Padigaru, Muralidhara  
APPLICANT: Anderson, David W.  
APPLICANT: Rastelli, Luca  
APPLICANT: Miller, Charles E.  
APPLICANT: Gerlach, Valerie  
APPLICANT: Taupier Jr, Raymond J.  
APPLICANT: Gusev, Vladimir Y.  
APPLICANT: Coleman, Steven D.  
APPLICANT: Wolenc, Adam R.  
APPLICANT: Pena, Carol E. A  
APPLICANT: Furtak, Katarzyna  
APPLICANT: Grose, William M.  
APPLICANT: Alsobrook II, John P.  
APPLICANT: Lepley, Denise M.  
APPLICANT: Rieger, Daniel K.  
APPLICANT: Burgess, Catherine E.  
TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same  
FILE REFERENCE: 21402-258  
CURRENT APPLICATION NUMBER: US/10/072,012  
PRIOR FILING DATE: 2002-01-31  
PRIOR APPLICATION NUMBER: 60/265,102  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: 60/265,514  
PRIOR FILING DATE: 2001-01-31  
PRIOR APPLICATION NUMBER: 60/265,517  
PRIOR FILING DATE: 2001-01-31  
PRIOR APPLICATION NUMBER: 60/265,412  
PRIOR FILING DATE: 2001-01-31  
PRIOR APPLICATION NUMBER: 60/265,395  
PRIOR FILING DATE: 2001-01-31  
PRIOR APPLICATION NUMBER: 60/266,406  
PRIOR FILING DATE: 2001-02-02  
PRIOR APPLICATION NUMBER: 60/266,767  
PRIOR FILING DATE: 2001-02-05  
PRIOR APPLICATION NUMBER: 60/267,057  
PRIOR FILING DATE: 2001-02-07  
PRIOR APPLICATION NUMBER: 60/266,975  
PRIOR FILING DATE: 2001-02-07  
PRIOR APPLICATION NUMBER: 60/267,459  
PRIOR FILING DATE: 2001-02-08  
Remaining Prior Application data removed - See File Wrapper or PALM.  
NUMBER OF SEQ ID NOS: 1391  
SOFTWARE: PatentIn Ver. 2.1  
SEQ ID NO 530  
LENGTH: 322  
TYPE: PRT  
ORGANISM: Homo sapiens  
US-10-072-012-530

Query Match 97.4%; Score 1647; DB 4; Length 322;  
Best Local Similarity 97.5%; Pred. No. 8.9e-140;  
Matches 314; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

QY 1 MDPTIVLGLKLPINGRETPCYNQTLSTGLTCTISLVALGNNAVVLGCRMRNA 60  
DB 1 MSTIIVLGLTLPINGRETPCYKQTLSTGLTCTIVSLVALGNNAVVLGCRMRNA 60

QY 61 VSYIYINLVANPFLPSGHIIIFSPPLINIRHPISKIISPWNTFPYFGLSMIASTER 120  
DB 61 VSYIYINLVAAADFLLSGHIIICSPPLINIRHPISKIISPNTFPYFGLSMIASTER 120  
QY 121 CUSIIMPWYHGRPRPYLSVNCVLLMALSLRSILEMFCDFLFGSANSVNCETSDFTT 180  
DB 121 CUSIIMPWYHGRPRPYLSVNCVLLMALSLRSILEMFCDFLFGSANSVNCETSDFTT 180  
QY 181 IAWLVFLCVVLCGSSVLVLRILCGSRKMPLTRLYVTILLTVLVFLCGLPFGIQWALFS 240  
DB 181 IAWLVFLCVVLCGSSVLVLRILCGSRKMPLTRLYVTILLTVLVFLCGLPFGIQWALFS 240  
QY 241 RTHLDWKVLPFCYHVLVSIIFLSALNSGANPIYFFVGSFQRQRNQLKVLQRALODTPE 300  
DB 241 RTHLDWKVLPFCYHVLVSIIFLSALNSGANPIYFFVGSFQRQRNQLKVLQRALODTPE 300  
QY 301 VDEGGMLPQETLELSGSRLEQ 322  
DB 301 VDEGGMLPQETLELSGSRLEQ 322

## RESULT 3

US-10-072-012-535  
Publication No. US20040033493A1  
GENERAL INFORMATION:  
APPLICANT: Tchernev, Velizar  
APPLICANT: Spytek, Kimberly  
APPLICANT: Zertusen, Bryan  
APPLICANT: Paturajan, Meera  
APPLICANT: Shimkets, Richard  
APPLICANT: Li, Li  
APPLICANT: Gangoli, Esha  
APPLICANT: Padigaru, Muralidhara  
APPLICANT: Anderson, David W.  
APPLICANT: Rastelli, Luca  
APPLICANT: Miller, Charles E.  
APPLICANT: Gerlach, Valerie  
APPLICANT: Taupier Jr, Raymond J.  
APPLICANT: Gusev, Vladimir Y.  
APPLICANT: Coleman, Steven D.  
APPLICANT: Wolenc, Adam R.  
APPLICANT: Pena, Carol E. A  
APPLICANT: Furtak, Katarzyna  
APPLICANT: Grose, William M.  
APPLICANT: Alsobrook II, John P.  
APPLICANT: Lepley, Denise M.  
APPLICANT: Rieger, Daniel K.  
APPLICANT: Burgess, Catherine E.  
TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same  
FILE REFERENCE: 21402-258  
CURRENT APPLICATION NUMBER: US/10/072,012  
PRIOR FILING DATE: 2002-01-31  
PRIOR APPLICATION NUMBER: 60/265,102  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: 60/265,514  
PRIOR FILING DATE: 2001-01-31  
PRIOR APPLICATION NUMBER: 60/265,517  
PRIOR FILING DATE: 2001-01-31  
PRIOR APPLICATION NUMBER: 60/266,412  
PRIOR FILING DATE: 2001-01-31  
PRIOR APPLICATION NUMBER: 60/265,395  
PRIOR FILING DATE: 2001-01-31  
PRIOR APPLICATION NUMBER: 60/266,406  
PRIOR FILING DATE: 2001-02-02  
PRIOR APPLICATION NUMBER: 60/266,767  
PRIOR FILING DATE: 2001-02-05  
PRIOR APPLICATION NUMBER: 60/267,057  
PRIOR FILING DATE: 2001-02-07  
PRIOR APPLICATION NUMBER: 60/266,975  
PRIOR FILING DATE: 2001-02-07  
PRIOR APPLICATION NUMBER: 60/267,459  
PRIOR FILING DATE: 2001-02-08

Remaining Prior Application data removed - See File Wrapper or PALM.  
; NUMBER OF SEQ ID NOS: 1391  
; SOFTWARE: PatentIn Ver. 2.1  
; SEQ ID NO 535  
; LENGTH: 322  
; TYPE: PRF  
; ORGANISM: Homo sapiens  
US-10-072-012-535

Query Match 97.4%; Score 1647; DB 4; Length 322;  
Best Local Similarity 97.5%; Pred. No. 8.9e-140;  
Matches 314; Conservative 4; Mismatches 4; Indels 0; Gaps 0;

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DB 1 MDSTIPVLGKLPINGREETPCYKQTLSPFTGLTCTIISLVALTGNAVVMLLGCRMRNA 60  
QY 61 VSIYIINLVANAFPLSGHIIISPLPLINIRHPIKILSPVMTFPYFGLSMLSAISTER 120  
DB 61 VSIYIINLVANAFPLSGHIIISPLPLINIRHPIKILSPVMTFPYFGLSMLSAISTER 120  
QY 121 CSTILPIMWHCRPRYLSVWCVLMLALSLRSILEMFCDFLFGANSVWCETSDFT 180  
DB 121 CSTILPIMWHCRPRYLSVWCVLMLALSLRSILEMFCDFLFGANSVWCETSDFT 180  
QY 181 IAMLVFLCVLLCGSSVLVLRILCGSRKMPLTRLYTILTVLVFLCGLPFGIQWALFS 240  
DB 181 IAMLVFLCVLLCGSSVLVLRILCGSRKMPLTRLYTILTVLVFLCGLPFGIQWALFS 240  
QY 241 RIHLDMKVLFCVHVLVIFLSALNSSANPIYFFVGSFRORONRQMLKVLQRLADTPE 300  
DB 241 RIHLDMKVLFCVHVLVIFLSALNSSANPIYFFVGSFRORONRQMLKVLQRLADTPE 300  
QY 301 VDEGGMLPQETLELSGSKLEQ 322  
DB 301 VDEGGMLPQETLELSGSKLEQ 322

## RESULT 4

US-09-995-225-20  
; Sequence 20, Application US/09995225  
; Publication No. US20020193584A1  
; GENERAL INFORMATION:  
; APPLICANT: Chen, Ruoping  
; APPLICANT: Chu, Zhi Liang  
; APPLICANT: Dang, Huang T.  
; APPLICANT: Lowitz, Kevin P.  
; APPLICANT: Priddy, Cameron  
; TITLE OF INVENTION: Endogenous And No. US20020193584A1-Endogenous Versions of Human G  
; FILE REFERENCE: AREN-0308  
; CURRENT APPLICATION NUMBER: US/09/995,225  
; CURRENT FILING DATE: 2001-11-26  
; PRIOR APPLICATION NUMBER: 09/170,496  
; PRIOR FILING DATE: 1998-10-13  
; PRIOR APPLICATION NUMBER: PCT/US99/23938  
; PRIOR FILING DATE: 1998-10-13  
; PRIOR APPLICATION NUMBER: 60/253,404  
; PRIOR FILING DATE: 2000-11-27  
; PRIOR APPLICATION NUMBER: 60/255,366  
; PRIOR FILING DATE: 2000-12-12  
; PRIOR APPLICATION NUMBER: 60/270,286  
; PRIOR FILING DATE: 2001-02-20  
; PRIOR APPLICATION NUMBER: 60/282,365  
; PRIOR FILING DATE: 2001-04-06  
; PRIOR APPLICATION NUMBER: 60/270,266  
; PRIOR FILING DATE: 2001-02-20  
; PRIOR APPLICATION NUMBER: 60/282,032  
; PRIOR FILING DATE: 2001-04-06  
; PRIOR APPLICATION NUMBER: 60/282,358  
; PRIOR FILING DATE: 2001-04-06  
; PRIOR APPLICATION NUMBER: 60/282,356  
; PRIOR FILING DATE: 2001-04-06

; PRIOR APPLICATION NUMBER: 60/290,917  
; PRIOR FILING DATE: 2001-05-14  
; PRIOR APPLICATION NUMBER: 60/309,208  
; PRIOR FILING DATE: 2001-07-31  
; NUMBER OF SEQ ID NOS: 67  
; SOFTWARE: PatentIn version 3.1  
; SEQ ID NO 20  
; LENGTH: 322  
; TYPE: PRF  
; ORGANISM: Artificial Sequence  
; FEATURE:  
; OTHER INFORMATION: No. US20020193584A1el Sequence  
US-09-995-225-20

Query Match 97.1%; Score 1642; DB 3; Length 322;  
Best Local Similarity 97.2%; Pred. No. 2.5e-139;  
Matches 313; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

QY 1 MDPTIPVLGKLPINGREETPCYNQTLSPFTGLTCTIISLVALTGNAVVMLLGCRMRNA 60  
DB 1 MDSTIPVLGKLPINGREETPCYKQTLSPFTGLTCTIISLVALTGNAVVMLLGCRMRNA 60  
QY 61 VSIYIINLVANAFPLSGHIIISPLPLINIRHPIKILSPVMTFPYFGLSMLSAISTER 120  
DB 61 VSIYIINLVANAFPLSGHIIISPLPLINIRHPIKILSPVMTFPYFGLSMLSAISTER 120  
QY 121 CSTILPIMWHCRPRYLSVWCVLMLALSLRSILEMFCDFLFGANSVWCETSDFT 180  
DB 121 CSTILPIMWHCRPRYLSVWCVLMLALSLRSILEMFCDFLFGANSVWCETSDFT 180  
QY 181 IAMLVFLCVLLCGSSVLVLRILCGSRKMPLTRLYTILTVLVFLCGLPFGIQWALFS 240  
DB 181 IAMLVFLCVLLCGSSVLVLRILCGSRKMPLTRLYTILTVLVFLCGLPFGIQWALFS 240  
QY 241 RIHLDMKVLFCVHVLVIFLSALNSSANPIYFFVGSFRORONRQMLKVLQRLADTPE 300  
DB 241 RIHLDMKVLFCVHVLVIFLSALNSSANPIYFFVGSFRORONRQMLKVLQRLADTPE 300  
QY 301 VDEGGMLPQETLELSGSKLEQ 322  
DB 301 VDEGGMLPQETLELSGSKLEQ 322

## RESULT 5

US-09-995-225-20  
; Sequence 20, Application US/09995225  
; Publication No. US20030139588A9  
; GENERAL INFORMATION:  
; APPLICANT: Chen, Ruoping  
; APPLICANT: Chu, Zhi Liang  
; APPLICANT: Dang, Huang T.  
; APPLICANT: Lowitz, Kevin P.  
; APPLICANT: Priddy, Cameron  
; TITLE OF INVENTION: Endogenous And No. US20030139588A9-Endogenous Versions of Human G  
; FILE REFERENCE: AREN-0308  
; CURRENT APPLICATION NUMBER: US/09/995,225  
; CURRENT FILING DATE: 2001-11-26  
; PRIOR APPLICATION NUMBER: 09/170,496  
; PRIOR FILING DATE: 1998-10-13  
; PRIOR APPLICATION NUMBER: PCT/US99/23938  
; PRIOR FILING DATE: 1998-10-13  
; PRIOR APPLICATION NUMBER: 60/253,404  
; PRIOR FILING DATE: 2000-11-27  
; PRIOR APPLICATION NUMBER: 60/255,366  
; PRIOR FILING DATE: 2000-12-12  
; PRIOR APPLICATION NUMBER: 60/270,286  
; PRIOR FILING DATE: 2001-02-20  
; PRIOR APPLICATION NUMBER: 60/282,365  
; PRIOR FILING DATE: 2001-04-06  
; PRIOR APPLICATION NUMBER: 60/270,266  
; PRIOR FILING DATE: 2001-02-20  
; PRIOR APPLICATION NUMBER: 60/282,032

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/ PRIOR FILING DATE: 2001-04-06
/ PRIOR APPLICATION NUMBER: 60/282,358
/ PRIOR FILING DATE: 2001-04-06
/ PRIOR APPLICATION NUMBER: 60/282,356
/ PRIOR FILING DATE: 2001-04-06
/ PRIOR APPLICATION NUMBER: 60/290,917
/ PRIOR FILING DATE: 2001-05-14
/ PRIOR APPLICATION NUMBER: 60/309,208
/ PRIOR FILING DATE: 2001-07-31
/ NUMBER OF SEQ ID NOS: 67
/ SOFTWARE: PatentIn version 3.1
/ SEQ ID NO: 20
/ LENGTH: 322
/ TYPE: PRT
/ ORGANISM: Artificial Sequence
/ FEATURE:
/ OTHER INFORMATION: No. US20030139588A9e1 Sequence
/ US-09-995-225-20
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Query Match 97.1%; Score 1642; DB 3; Length 322;

Best local Similarity 97.2%; Pred. No. 2,5e-139; Matches 313; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

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DB 1 MDSTIPVLGTETLPINGREETPCYKOTLSFTGLTCTIVSVALTGNAVVTMLGCRMRNA 60
QY 61 VSIYIINLVAAANFLPSGHIIFSPPLINIRHPISKILSPWMTFPYFIGLSMLSAISTER 120
DB 61 VSIYIINLVAAADFLPSGHICSPPLINIRHPISKILSPWMTFPYFIGLSMLSAISTER 120
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DB 121 CSTIIMPWYHCRPRYISSVMCVLLMALSLRSILEMFCDFLFGSANSVWCETSDFTT 180
QY 181 IAMLVFLCVVLCGSSLVLLVRLICGSRKMPLTRLYVTILLTVLVFLCGLPFGIQWALFS 240
DB 181 IAMLVFLCVVLCGSSLVLLVRLICGSRKMPLTRLYVTILLTVLVFLCGLPFGIQWALFS 240
QY 241 RIHLDMKULFCVHVLVSTFLSALNSSANPIYFVGSFRQRONRQNLKVLQALQDTPB 300
DB 241 RIHLDMKULFCVHVLVSTFLSALNSSANPIYFVGSFRQRONRQNLKVLQALQDTPB 300
QY 301 VDEGGGMLPQETLELSGSKLEQ 322
DB 301 VDEGGGMLPQETLELSGSKLEQ 322
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## RESULT 6

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US-10-183-116-31
/ Sequence 31, Application US/10183116
/ Publication No. US20030092035A1
/ GENERAL INFORMATION:
/ APPLICANT: Anderson, David J.
/ APPLICANT: Dong, Xinzhang
/ APPLICANT: Zylka, Mark
/ APPLICANT: Simon, Melvin
/ APPLICANT: Han, Sang-Kyou
/ TITLE OF INVENTION: PAIN SIGNALING MOLECULES
/ FILE REFERENCE: CALTE,4C1CP1
/ CURRENT APPLICATION NUMBER: US/10/183,116
/ CURRENT FILING DATE: 2002-06-26
/ PRIOR APPLICATION NUMBER: US 60/222,344
/ PRIOR FILING DATE: 2000-08-01
/ PRIOR APPLICATION NUMBER: US 60/202,027
/ PRIOR FILING DATE: 2000-05-04
/ PRIOR APPLICATION NUMBER: US 09/704,707
/ PRIOR FILING DATE: 2000-11-03
/ PRIOR APPLICATION NUMBER: US 60/285,493
/ PRIOR FILING DATE: 2001-04-19
/ PRIOR APPLICATION NUMBER: US 09/849,869
/ PRIOR FILING DATE: 2001-05-04
/ NUMBER OF SEQ ID NOS: 109
```

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/ SOFTWARE: PaetSeq for Windows Version 4.0
/ SEQ ID NO: 31
/ LENGTH: 322
/ TYPE: PRT
/ ORGANISM: Homo sapiens
/ US-10-183-116-31
```

Query Match 97.1%; Score 1642; DB 4; Length 322;

Best local Similarity 97.2%; Pred. No. 2,5e-139; Matches 313; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

```
QY 1 MDPTIPVIGTKLTPINGREETPCYNOTLSFTGLTCTIISVALTGNAVVTMLGCRMRNA 60
DB 1 MDSTIPVLGTETLPINGREETPCYKOTLSFTGLTCTIVSVALTGNAVVTMLGCRMRNA 60
QY 61 VSIYIINLVAAANFLPSGHIIFSPPLINIRHPISKILSPWMTFPYFIGLSMLSAISTER 120
DB 61 VSIYIINLVAAADFLPSGHICSPPLINIRHPISKILSPWMTFPYFIGLSMLSAISTER 120
QY 121 CSTIIMPWYHCRPRYISSVMCVLLMALSLRSILEMFCDFLFGSANSVWCETSDFTT 180
DB 121 CSTIIMPWYHCRPRYISSVMCVLLMALSLRSILEMFCDFLFGSANSVWCETSDFTT 180
QY 181 IAMLVFLCVVLCGSSLVLLVRLICGSRKMPLTRLYVTILLTVLVFLCGLPFGIQWALFS 240
DB 181 IAMLVFLCVVLCGSSLVLLVRLICGSRKMPLTRLYVTILLTVLVFLCGLPFGIQWALFS 240
QY 241 RIHLDMKULFCVHVLVSTFLSALNSSANPIYFVGSFRQRONRQNLKVLQALQDTPB 300
DB 241 RIHLDMKULFCVHVLVSTFLSALNSSANPIYFVGSFRQRONRQNLKVLQALQDTPB 300
QY 301 VDEGGGMLPQETLELSGSKLEQ 322
DB 301 VDEGGGMLPQETLELSGSKLEQ 322
```

## RESULT 7

```
US-10-225-567A-674
/ Sequence 674, Application US/10225567A
/ Publication No. US20030113798A1
/ GENERAL INFORMATION:
/ APPLICANT: Lifespan Biosciences
/ APPLICANT: Brown, Joseph P.
/ APPLICANT: Burner, Glenna C.
/ APPLICANT: Roush, Christine L.
/ TITLE OF INVENTION: ANTIGENIC PEPTIDES AND ANTIBODIES FOR G PROTEIN-COUPLED RECEPTORS
/ FILE REFERENCE: 1920-4-4
/ CURRENT APPLICATION NUMBER: US/10/225,567A
/ CURRENT FILING DATE: 2001-12-19
/ PRIOR APPLICATION NUMBER: 60/257,144
/ PRIOR FILING DATE: 2000-12-19
/ NUMBER OF SEQ ID NOS: 2292
/ SOFTWARE: PatentIn version 3.1
/ SEQ ID NO: 674
/ LENGTH: 322
/ TYPE: PRT
/ ORGANISM: Homo sapiens
/ US-10-225-567A-674
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Query Match 97.1%; Score 1642; DB 4; Length 322;

Best local Similarity 97.2%; Pred. No. 2,5e-139; Matches 313; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

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QY 1 MDPTIPVIGTKLTPINGREETPCYNOTLSFTGLTCTIISVALTGNAVVTMLGCRMRNA 60
DB 1 MDSTIPVLGTETLPINGREETPCYKOTLSFTGLTCTIVSVALTGNAVVTMLGCRMRNA 60
QY 61 VSIYIINLVAAANFLPSGHIIFSPPLINIRHPISKILSPWMTFPYFIGLSMLSAISTER 120
DB 61 VSIYIINLVAAADFLPSGHICSPPLINIRHPISKILSPWMTFPYFIGLSMLSAISTER 120
QY 121 CSTIIMPWYHCRPRYISSVMCVLLMALSLRSILEMFCDFLFGSANSVWCETSDFTT 180
DB 121 CSTIIMPWYHCRPRYISSVMCVLLMALSLRSILEMFCDFLFGSANSVWCETSDFTT 180
```

```
Db 121 CSlMPiWtHCRPRYtSSwCVLMLSLRSILtEMFCDFtFGADSwCtSDPtt 180
Qy 181 IAmVFLcVVLcGSSlVLVRLtCGSRKMPtRLVYtTLtVLVFLtCGLtPFGtOWALFS 240
Db 181 IAmVFLcVVLcGSSlVLVRLtCGSRKMPtRLVYtTLtVLVFLtCGLtPFGtOWALFS 240
Qy 241 RlHLDWkVtFCHVhVtSIFtSALnSSANPtiYtFVGtSFROtRONtKtVLQALODtPE 300
Db 241 RlHLDWkVtFCHVhVtSIFtSALnSSANPtiYtFVGtSFROtRONtKtVLQALODtPE 300
Qy 301 VDEGGMLPQEtTELtSGSRLEQ 322
Db 301 VDEGGMLPQEtTELtSGSRLEQ 322
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## RESULT 8

```
US-10-072-012-529
; Sequence 529, Application US/10072012
; Publication No. US2004003493A1
; GENERAL INFORMATION:
; APPLICANT: Tcherev, Velizar
; APPLICANT: Spytek, Kimberly
; APPLICANT: Zerhusen, Bryan
; APPLICANT: Raturajan, Meera
; APPLICANT: Shimkets, Richard
; APPLICANT: Li, Li
; APPLICANT: Gangolli, Baha
; APPLICANT: Padigar, Muralidhara
; APPLICANT: Anderson, David W.
; APPLICANT: Rastelli, Luca
; APPLICANT: Miller, Charles E.
; APPLICANT: Gerlach, Valerie
; APPLICANT: Taupier Jr, Raymond J.
; APPLICANT: Gusev, Vladimir Y.
; APPLICANT: Colman, Steven D.
; APPLICANT: Wolenc, Adam R.
; APPLICANT: Pena, Carol E. A
; APPLICANT: Furtak, Katarzyna
; APPLICANT: Grosse, William M.
; APPLICANT: Alsobrook II, John P.
; APPLICANT: Lepley, Denise M.
; APPLICANT: Rieger, Daniel K.
; APPLICANT: Burgess, Catherine E.
; TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
; FILE REFERENCE: 21402-258
; CURRENT APPLICATION NUMBER: US/10/072,012
; CURRENT FILING DATE: 2002-01-31
; PRIOR APPLICATION NUMBER: 60/265,102
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: 60/265,514
; PRIOR FILING DATE: 2001-01-31
; PRIOR APPLICATION NUMBER: 60/265,517
; PRIOR FILING DATE: 2001-01-31
; PRIOR APPLICATION NUMBER: 60/265,412
; PRIOR FILING DATE: 2001-01-31
; PRIOR APPLICATION NUMBER: 60/265,395
; PRIOR FILING DATE: 2001-01-31
; PRIOR APPLICATION NUMBER: 60/266,406
; PRIOR FILING DATE: 2001-02-02
; PRIOR APPLICATION NUMBER: 60/266,767
; PRIOR FILING DATE: 2001-02-05
; PRIOR APPLICATION NUMBER: 60/267,057
; PRIOR FILING DATE: 2001-02-07
; PRIOR APPLICATION NUMBER: 60/266,975
; PRIOR FILING DATE: 2001-02-07
; PRIOR APPLICATION NUMBER: 60/267,459
; PRIOR FILING DATE: 2001-02-08
; Remaining Prior Application data removed - See file wrapper or PALM.
; NUMBER OF SEQ ID NOS: 1391
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 529
; LENGTH: 322
; TYPE: PRT
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```
; ORGANISM: Homo sapiens
US-10-072-012-529
```

```
Query Match 97.1%; Score 1642; DB 4; Length 322;
Best Local Similarity 97.2%; Pred. No. 2,5e-139;
Matches 313; Conservative 5; Mismatches 4; Indels 0; Gaps 0;
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Qy 1 MDPTtVtAGtKtLPtNGREtPCYNtGtSFTGtCIISVtALtGNVtMLtGCRtRRNA 60
Db 1 MDSTtVtLGTtBLtPpNGREtPCYKtGtSFTGtCIISVtALtGNVtMLtGCRtRRNA 60
Qy 61 VStYtILtVtAAdFLtFtSGHtICSPtRLtINtRHPtSKtLSPWtPFPtFGtISMtSAStER 120
Db 61 VStYtILtVtAAdFLtFtSGHtICSPtRLtINtRHPtSKtLSPWtPFPtFGtISMtSAStER 120
Qy 121 CSlMPiWtHCRPRYtSSwCVLMLSLRSILtEMFCDFtFGADSwCtSDPtt 180
Db 121 CSlMPiWtHCRPRYtSSwCVLMLSLRSILtEMFCDFtFGADSwCtSDPtt 180
Qy 181 IAmVFLcVVLcGSSlVLVRLtCGSRKMPtRLVYtTLtVLVFLtCGLtPFGtOWALFS 240
Db 181 IAmVFLcVVLcGSSlVLVRLtCGSRKMPtRLVYtTLtVLVFLtCGLtPFGtOWALFS 240
Qy 241 RlHLDWkVtFCHVhVtSIFtSALnSSANPtiYtFVGtSFROtRONtKtVLQALODtPE 300
Db 241 RlHLDWkVtFCHVhVtSIFtSALnSSANPtiYtFVGtSFROtRONtKtVLQALODtPE 300
Qy 301 VDEGGMLPQEtTELtSGSRLEQ 322
Db 301 VDEGGMLPQEtTELtSGSRLEQ 322
```

## RESULT 9

```
US-10-072-012-534
; Sequence 534, Application US/10072012
; Publication No. US2004003493A1
; GENERAL INFORMATION:
; APPLICANT: Tcherev, Velizar
; APPLICANT: Spytek, Kimberly
; APPLICANT: Zerhusen, Bryan
; APPLICANT: Raturajan, Meera
; APPLICANT: Shimkets, Richard
; APPLICANT: Li, Li
; APPLICANT: Gangolli, Baha
; APPLICANT: Padigar, Muralidhara
; APPLICANT: Anderson, David W.
; APPLICANT: Rastelli, Luca
; APPLICANT: Miller, Charles E.
; APPLICANT: Gerlach, Valerie
; APPLICANT: Taupier Jr, Raymond J.
; APPLICANT: Gusev, Vladimir Y.
; APPLICANT: Colman, Steven D.
; APPLICANT: Wolenc, Adam R.
; APPLICANT: Pena, Carol E. A
; APPLICANT: Furtak, Katarzyna
; APPLICANT: Grosse, William M.
; APPLICANT: Alsobrook II, John P.
; APPLICANT: Lepley, Denise M.
; APPLICANT: Rieger, Daniel K.
; APPLICANT: Burgess, Catherine E.
; TITLE OF INVENTION: Proteins and Nucleic Acids Encoding Same
; FILE REFERENCE: 21402-258
; CURRENT APPLICATION NUMBER: US/10/072,012
; CURRENT FILING DATE: 2002-01-31
; PRIOR APPLICATION NUMBER: 60/265,102
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: 60/265,514
; PRIOR FILING DATE: 2001-01-31
; PRIOR APPLICATION NUMBER: 60/265,517
; PRIOR FILING DATE: 2001-01-31
; PRIOR APPLICATION NUMBER: 60/265,412
; PRIOR FILING DATE: 2001-01-31
; PRIOR APPLICATION NUMBER: 60/265,395
```

;; PRIOR FILING DATE: 2001-01-31  
;; PRIOR APPLICATION NUMBER: 60/266,406  
;; PRIOR FILING DATE: 2001-02-02  
;; PRIOR APPLICATION NUMBER: 60/266,767  
;; PRIOR FILING DATE: 2001-02-05  
;; PRIOR APPLICATION NUMBER: 60/267,057  
;; PRIOR FILING DATE: 2001-02-07  
;; PRIOR APPLICATION NUMBER: 60/266,975  
;; PRIOR FILING DATE: 2001-02-07  
;; PRIOR APPLICATION NUMBER: 60/267,459  
;; PRIOR FILING DATE: 2001-02-08  
;; Remaining Prior Application data removed - See file Wrapper or PALM.  
;; NUMBER OF SEQ ID NOS: 1391  
;; SOFTWARE: PatentIn Ver. 2.1  
;; SEQ ID NO 534  
;; LENGTH: 322  
;; TYPE: PRT  
;; ORGANISM: Homo sapiens  
US-10-072-012-534

Query Match 97.1%; Score 1642; DB 4; Length 322;  
Best Local Similarity 97.2%; Pred. No.2.5e-139;  
Matches 313; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

QY 1 MDPTIPVLGTLTPINGREBETPCYNQTLSTFTGLCTIISVALTGNVAVMLLGCRRRNA 60  
DB 1 MDSTIPVLGTLTPINGREBETPCYKQTLSTFTGLCTIVSLVALTGNVAVMLLGCRRRNA 60  
QY 61 VSIIYIINTLVANFLPLSGHIIISPLPLINIRHPISKILSPVWTFPFYFIGLSMLSAISTER 120  
DB 61 VSIIYIINTLVADFLPLSGHIIICSPRLINIRHPISKILSPVWTFPFYFIGLSMLSAISTER 120  
QY 121 CUSTLMPYHGRPRRYLSSVNCVLLMALSLRSILEMFCDFLPSGANSVWCETSDFTT 180  
DB 121 CUSTLMPYHGRPRRYLSSVNCVLLMALSLRSILEMFCDFLPSGANSVWCETSDFTT 180  
QY 181 IAMLVFLCVLGCSSLVLLVRLICGSRKMPLTRVYITLLTVLVLGCLPGFIGQWALFS 240  
DB 181 IAMLVFLCVLGCSSLVLLVRLICGSRKMPLTRVYITLLTVLVLGCLPGFIGQWALFS 240  
QY 241 RIHLDMKVLFCVHVLVSTFLSALNSANPIIYFVGSFRORONRQNLKVLQRALODTBE 300  
DB 241 RIHLDMKVLFCVHVLVSTFLSALNSANPIIYFVGSFRORONRQNLKVLQRALODTBE 300  
QY 301 VDEGGWLPQETLELSSGRLQ 322  
DB 301 VDEGGWLPQETLELSSGRLQ 322

RESULT 10  
US-10-957-135-31  
;; Sequence 31, Application US/10957135  
;; Publication No. US20050037468A1  
;; GENERAL INFORMATION:  
;; APPLICANT: Anderson, David J.  
;; APPLICANT: Dong, Xinzhang  
;; APPLICANT: Zylka, Mark  
;; APPLICANT: Simon, Melvin  
;; APPLICANT: Han, Sang-Kyou  
;; TITLE OF INVENTION: PAIN SIGNALING MOLECULES  
;; FILE REFERENCE: CALTE.4C1CP1C1  
;; CURRENT APPLICATION NUMBER: US/10/957,135  
;; CURRENT FILING DATE: 2004-09-30  
;; PRIOR APPLICATION NUMBER: US 60/222,344  
;; PRIOR FILING DATE: 2000-08-01  
;; PRIOR APPLICATION NUMBER: US 60/202,027  
;; PRIOR FILING DATE: 2000-05-04  
;; PRIOR APPLICATION NUMBER: US 09/704,707  
;; PRIOR FILING DATE: 2000-11-03  
;; PRIOR APPLICATION NUMBER: US 60/285,493  
;; PRIOR FILING DATE: 2001-04-19  
;; PRIOR APPLICATION NUMBER: US 09/849,869  
;; PRIOR FILING DATE: 2001-05-04

;; PRIOR APPLICATION NUMBER: US 10/183,116  
;; PRIOR FILING DATE: 2002-06-26  
;; NUMBER OF SEQ ID NOS: 109  
;; SOFTWARE: FastSeq for Windows Version 4.0  
;; SEQ ID NO 31  
;; LENGTH: 322  
;; TYPE: PRT  
;; ORGANISM: Homo sapiens  
US-10-957-135-31

Query Match 97.1%; Score 1642; DB 5; Length 322;  
Best Local Similarity 97.2%; Pred. No.2.5e-139;  
Matches 313; Conservative 5; Mismatches 4; Indels 0; Gaps 0;

QY 1 MDPTIPVLGTLTPINGREBETPCYNQTLSTFTGLCTIISVALTGNVAVMLLGCRRRNA 60  
DB 1 MDSTIPVLGTLTPINGREBETPCYKQTLSTFTGLCTIVSLVALTGNVAVMLLGCRRRNA 60  
QY 61 VSIIYIINTLVANFLPLSGHIIISPLPLINIRHPISKILSPVWTFPFYFIGLSMLSAISTER 120  
DB 61 VSIIYIINTLVADFLPLSGHIIICSPRLINIRHPISKILSPVWTFPFYFIGLSMLSAISTER 120  
QY 121 CUSTLMPYHGRPRRYLSSVNCVLLMALSLRSILEMFCDFLPSGANSVWCETSDFTT 180  
DB 121 CUSTLMPYHGRPRRYLSSVNCVLLMALSLRSILEMFCDFLPSGANSVWCETSDFTT 180  
QY 181 IAMLVFLCVLGCSSLVLLVRLICGSRKMPLTRVYITLLTVLVLGCLPGFIGQWALFS 240  
DB 181 IAMLVFLCVLGCSSLVLLVRLICGSRKMPLTRVYITLLTVLVLGCLPGFIGQWALFS 240  
QY 241 RIHLDMKVLFCVHVLVSTFLSALNSANPIIYFVGSFRORONRQNLKVLQRALODTBE 300  
DB 241 RIHLDMKVLFCVHVLVSTFLSALNSANPIIYFVGSFRORONRQNLKVLQRALODTBE 300  
QY 301 VDEGGWLPQETLELSSGRLQ 322  
DB 301 VDEGGWLPQETLELSSGRLQ 322

RESULT 11  
US-11-083-611-31  
;; Sequence 31, Application US/11083611  
;; Publication No. US20050164288A1  
;; GENERAL INFORMATION:  
;; APPLICANT: Anderson, David J.  
;; APPLICANT: Dong, Xinzhang  
;; APPLICANT: Zylka, Mark  
;; APPLICANT: Simon, Melvin  
;; APPLICANT: Han, Sang-Kyou  
;; TITLE OF INVENTION: PAIN SIGNALING MOLECULES  
;; FILE REFERENCE: CALTE.004C1  
;; CURRENT APPLICATION NUMBER: US/11/083,611  
;; CURRENT FILING DATE: 2005-03-17  
;; PRIOR APPLICATION NUMBER: US 09/849,869  
;; PRIOR FILING DATE: 2001-05-04  
;; PRIOR APPLICATION NUMBER: US 60/222,344  
;; PRIOR FILING DATE: 2000-08-01  
;; PRIOR APPLICATION NUMBER: US 60/202,027  
;; PRIOR FILING DATE: 2000-05-04  
;; PRIOR APPLICATION NUMBER: US 09/704,707  
;; PRIOR FILING DATE: 2000-11-03  
;; PRIOR APPLICATION NUMBER: US 60/285,493  
;; PRIOR FILING DATE: 2001-04-19  
;; NUMBER OF SEQ ID NOS: 115  
;; SOFTWARE: FastSeq for Windows Version 4.0  
;; SEQ ID NO 31  
;; LENGTH: 322  
;; TYPE: PRT  
;; ORGANISM: Homo sapiens  
US-11-083-611-31

Query Match 97.1%; Score 1642; DB 6; Length 322;  
Best Local Similarity 97.2%; Pred. No.2.5e-139;

	Matches	313:	Conservative	5:	Mismatches	4:	Indels	0:	Gaps	0:
Qy	1	MDPTIPVLGKLTTPINGSEETPCINQVLSFGLTCTIISLVALTGNAAVLMILGCMRRNA	60							
Db	1	MDSTIPVLGTETLTPINGSEETPCYKQVLSFGLTCTIISLVALTGNAAVLMILGCMRRNA	60							
Qy	61	VSIIYILNLVANAFLFLSGHIIIFSLPLINIRHPIISKIISPVWTPPYFGLSMLSIATER	120							
Db	61	VSIIYILNLVNAADFFLSGHIIICSPRLINIRHPIISKIISPVWTPPYFGLSMLSIATER	120							
Qy	121	CLSILMPIMWYCRPRRYLSSVWCVLVLAALSLRSLILEMFCDFLPSGANSVWCERSDFTT	180							
Db	121	CLSLIMPIWYCRPRRYLSSVWCVLVLAALSLRSLILEMFCDFLPSGADSVWCERSDFTT	180							
Qy	181	IAMLVFLCVVLGGSSLVLVLRILCGSRKMPRLRYVLTLLTVLVFLCGLPFGIOMALFS	240							
Db	181	IAMLVFLCVVLGGSSLVLVLRILCGSRKMPRLRYVLTLLTVLVFLCGLPFGIOMALFS	240							
Qy	241	RIHIDMKVLFGHYHVSIFLSALNSSANPIITYFPGSFRORONQMLKLYORALQDTPPE	300							
Db	241	RIHIDMKVLFGHYHVSIFLSALNSSANPIITYFPGSFRORONQMLKLYORALQDTPPE	300							
Qy	301	VDEGGGMLPQETTELSSGSKLEO	322							
Db	301	VDEGGGMLPQETTELSSGSKLEO	322							

```

RESULT 12
US-09-867-570-2
; Sequence 2, Application US/09867570
; Publication No. US20040076951A1
; GENERAL INFORMATION:
; APPLICANT: WEI, Ming-Hui et al.
; TITLE OF INVENTION: ISOLATED HUMAN G-PROTEIN COUPLED
; TITLE OF INVENTION: RECEPTORS, NUCLEIC ACID MOLECULES ENCODING HUMAN GPCR
; TITLE OR INVENTION: PROTEINS, AND USES THEREOF
; FILE REFERENCE: C000900-CIP
; CURRENT APPLICATION NUMBER: US/09/867,570
; CURRENT FILING DATE: 2001-05-31
; PRIOR APPLICATION NUMBER: 09/695,045
; PRIOR FILING DATE: 2000-10-25
; NUMBER OF SEQ ID NOS: 4
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 2
; LENGTH: 337
; TYPE: PRT
; ORGANISM: Human
; US-09-867-570-2

```

Query Match	97.1%	Score 1642	DB 3	Length 337
Best Local Similarity	97.2%	Pred. No. 2.6e-139		
Matches 313	Conservative 5	Mismatches 4	Indels 0	Gaps 0

[illegible]

```
QY      301 VDEGGWLPQETLEISGSKLEQ 322
      |||||:|||||
Db      316 VDEGGWLPQETLEISGSRLEQ 337
```

```

RESULT 13
US-10-505-486-104
; Sequence 104, Application US/10505486
; Publication No. US20050118639A1
; GENERAL INFORMATION:
; APPLICANT: Takeda Chemical Industries, Ltd.
; TITLE OF INVENTION: Determination of a ligand
; FILE REFERENCE: P03-0006CT
; CURRENT APPLICATION NUMBER: US/10/505,486
; CURRENT FILING DATE: 2004-08-20
; PRIOR APPLICATION NUMBER: JP 2002-45728
; PRIOR FILING DATE: 2002-02-22
; PRIOR APPLICATION NUMBER: JP 2002-213949
; PRIOR FILING DATE: 2002-07-23
; PRIOR APPLICATION NUMBER: JP 2002-298237
; PRIOR FILING DATE: 2002-10-11
; NUMBER OF SEQ ID NOS: 232
; SEQ ID NO 104
; LENGTH: 560
; TYPE: prt
; ORGANISM: Human
US-10-505-486-104

```

Query Match	97.1%	Score 1642;	DB 5;	Length 560;
Best Local Similarity	97.2%	Pred. No. 4.5e-139;		
Matches 313; Conservative	5;	Mismatches 4;	Indels 0;	Gaps 0;

Qy	1	MDPTIPVGLTGTNGNEETPCVQYQSIFGLTICISLVALTGAAVYMLMGCRNRA	60
Db	1	MDSTIPVGLTGTNGNEETPCYKQYQSIFGLTICISLVALTGAAVYMLMGCRNRA	60
Qy	61	VSIIYILNVANPLFLSGHIIISPLPLINIRHPIISKIISPVMTPEYFGLSMLSAISTER	120
Db	61	VSIIYILNVADPFLSGHIIICSPURLINIRHPIISKIISPVMTPEYFGLSMLSAISTER	120
Qy	121	CLSIIPPIWYGRBPRPYLSSVMCVLIMALSILRSILLENMFCDFLPSGANSVMCETSDFIT	180
Db	121	CLSIITMPIMYGRBPRPYLSSVMCVLIMALSILRSILLENMFCDFLPSGANSVMCETSDFIT	180
Qy	181	IAMLVFLCVLGGSSLVILVIRILGSRKMPILRLVYITLITVLVFLGCLPGICQWALFS	240
Db	181	IAMLVFLCVLGGSSLVILVIRILGSRKMPILRLVYITLITVLVFLGCLPGICQWALFS	240
Qy	241	RIHLDMKVLCFCHVHVISIFLSALNSSAPRIIYFVFGSEFRORONRNLKVLORALQDTEP	300
Db	241	RIHLDMKVLCFCHVHVISIFLSALNSSAPRIIYFVFGSEFRORONRNLKVLORALQDTEP	300
Qy	301	VDEGGMWLPQETTELISGSRLEQ 322	
Db	301	VDEGGMWLPQETTELISGSRLEQ 322	

```

: RESULT 14
: US-10-401-397A-2
: Sequence 2, Application US/10401397A
: Publication No. US20030212001A1
: GENERAL INFORMATION:
: APPLICANT: Peri, Krishna G.
: APPLICANT: Moffett, Serge
: APPLICANT: Ayran, Daniel
: TITLE OF INVENTION: METHODS AND COMPOUNDS FOR PREVENTION AND TREATMENT OF ELEVATED
: TITLE OF INVENTION: INTRAOCULAR PRESSURE AND RELATED CONDITIONS
: FILE REFERENCE: 4518/1m674US1
: CURRENT APPLICATION NUMBER: US/10/401,397A
: CURRENT FILING DATE: 2003-03-27
: PRIOR APPLICATION NUMBER: US 60/367,513
: PRIOR FILING DATE: 2002-03-27
: NUMBER OF SEQ ID NOS: 8

```

SOFTWARE: PatentIn version 3.1  
SEQ ID NO 2  
LENGTH: 322  
TYPE: PRT  
ORGANISM: Homo sapiens  
US-10-401-397A-2

Query Match 96.8%; Score 1637; DB 4; Length 322;  
Best Local Similarity 96.9%; Pred. No. 7e-139;  
Matches 312; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

QY 1 MDPTIPVLGKTLPIINGRETPCYNOTLSFTGLTCTISLVALTGNAVVLMLGCRMRNA 60  
DB 1 MSTIIPVLGTELPIINGRETPCYKOTLSFTGLTCTIVSLVALTGDAVVLMLGCRMRNA 60  
QY 61 VSIYIINLVANANFLFSGHIIIFSPPLINIRHPISKILSPWTFPFYIGLSMLSAISTER 120  
DB 61 VSIYIINLVAADFLFSGHIIICSPPLIRINIRHPISKILSPWTFPFYIGLSMLSAISTER 120  
QY 121 CSTIIMPPIWYHGRPRYLSVWCVLMLALSILRSILEMFCDFLFGANSVWCETSDFIT 180  
DB 121 CSTIIMPPIWYHGRPRYLSVWCVLMLALSILRSILEMFCDFLFGADSVWCETSDFIT 180  
QY 181 IAMLVFLCVLGGSSLVLLVRLICGSRKMPLTRLYVTILLTVLVFLCGLPFGIQWALFS 240  
DB 181 IAMLVFLCVLGGSSLVLLVRLICGSRKMPLTRLYVTILLTVLVFLCGLPFGIQWALFS 240  
QY 241 RIHLDKVLFCVHVLVSIFLSALNSSANPIIYFVGSFRORONRQNLKVLQALODTPE 300  
DB 241 RIHLDKVLFCVHVLVSIFLSALNSSANPIIYFVGSFRORONRQNLKVLQALODTPE 300  
QY 301 VDEGGWLPQETLELGSRLAQ 322  
DB 301 VDEGGWLPQETLELGSRLAQ 322

## RESULT 15

US-10-977-810-2  
Sequence 2, Application US/10977810  
Publication No. US2005005960A1  
GENERAL INFORMATION:  
APPLICANT: Peri, Krishna G.  
APPLICANT: Moffett, Serge  
APPLICANT: Abrian, Daniel  
TITLE OF INVENTION: METHODS AND COMPOUNDS FOR PREVENTION AND TREATMENT OF ELEVATED  
FILE OF INVENTION: INTRACULAR PRESSURE AND RELATED CONDITIONS  
FILE REFERENCE: 04518/100674-US2  
CURRENT APPLICATION NUMBER: US/10/977,810  
CURRENT FILING DATE: 2004-10-28  
PRIOR APPLICATION NUMBER: US 60/367,513  
PRIOR FILING DATE: 2002-03-27  
NUMBER OF SEQ ID NOS: 8  
SOFTWARE: PatentIn version 3.1  
SEQ ID NO 2  
LENGTH: 322  
TYPE: PRT  
ORGANISM: Homo sapiens  
US-10-977-810-2

Query Match 96.8%; Score 1637; DB 5; Length 322;  
Best Local Similarity 96.9%; Pred. No. 7e-139;  
Matches 312; Conservative 6; Mismatches 4; Indels 0; Gaps 0;

QY 1 MDPTIPVLGKTLPIINGRETPCYNOTLSFTGLTCTISLVALTGNAVVLMLGCRMRNA 60  
DB 1 MSTIIPVLGTELPIINGRETPCYKOTLSFTGLTCTIVSLVALTGDAVVLMLGCRMRNA 60  
QY 61 VSIYIINLVANANFLFSGHIIIFSPPLINIRHPISKILSPWTFPFYIGLSMLSAISTER 120  
DB 61 VSIYIINLVAADFLFSGHIIICSPPLIRINIRHPISKILSPWTFPFYIGLSMLSAISTER 120  
QY 121 CSTIIMPPIWYHGRPRYLSVWCVLMLALSILRSILEMFCDFLFGANSVWCETSDFIT 180  
DB 121 CSTIIMPPIWYHGRPRYLSVWCVLMLALSILRSILEMFCDFLFGANSVWCETSDFIT 180

DB 121 CSTIIMPPIWYHGRPRYLSVWCVLMLALSILRSILEMFCDFLFGADSVWCETSDFIT 180  
QY 181 IAMLVFLCVLGGSSLVLLVRLICGSRKMPLTRLYVTILLTVLVFLCGLPFGIQWALFS 240  
DB 181 IAMLVFLCVLGGSSLVLLVRLICGSRKMPLTRLYVTILLTVLVFLCGLPFGIQWALFS 240  
QY 241 RIHLDKVLFCVHVLVSIFLSALNSSANPIIYFVGSFRORONRQNLKVLQALODTPE 300  
DB 241 RIHLDKVLFCVHVLVSIFLSALNSSANPIIYFVGSFRORONRQNLKVLQALODTPE 300  
QY 301 VDEGGWLPQETLELGSRLAQ 322  
DB 301 VDEGGWLPQETLELGSRLAQ 322

Search completed: February 3, 2006, 20:46:57  
Job time : 177 secs

GenCore version 5.1.7  
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OM protein - protein search, using sw model

Run on: February 3, 2006, 20:44:10 ; Search time 16 Seconds  
(without alignments)  
235,826 Million cell updates/sec

Title: US-10-747-702-3  
Perfect score: 1691  
Sequence: 1 MPTPLVIGTKLTPINGREE.....EGGGMIPQETLISGSKLRQ 322

Scoring table: BLOSUM62  
Gapco 10.0 , Gapext 0.5

Searched: 88029 seqs, 11718060 residues  
Total number of hits satisfying chosen parameters: 88029

Minimum DB seq length: 0  
Maximum DB seq length: 200000000  
Post-processing: Minimum Match 0%  
Maximum Match 100%  
Listing first 45 summaries

Database : Published Applications\_AA.New:\*  
1: /cgn2\_6/prodata/2/pubpaa/US08\_NEW\_PUB pep:\*  
2: /cgn2\_6/prodata/2/pubpaa/US06\_NEW\_PUB pep:\*  
3: /cgn2\_6/prodata/2/pubpaa/US07\_NEW\_PUB pep:\*  
4: /cgn2\_6/prodata/2/pubpaa/PCR\_NEW\_PUB pep:\*  
5: /cgn2\_6/prodata/2/pubpaa/US05\_NEW\_PUB pep:\*  
6: /cgn2\_6/prodata/2/pubpaa/US10\_NEW\_PUB pep:\*  
7: /cgn2\_6/prodata/2/pubpaa/US11\_NEW\_PUB pep:\*  
8: /cgn2\_6/prodata/2/pubpaa/US60\_NEW\_PUB pep:\*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	485.5	28.7	311	US-10-980-388-111	Sequence 111, App
2	485.5	28.7	530	US-10-980-388-62	Sequence 62, App1
3	479.5	28.4	311	US-10-980-388-113	Sequence 113, App
4	410.5	24.3	343	US-10-055-877-244	Sequence 244, App
5	410.5	24.3	343	US-10-055-877-245	Sequence 245, App
6	403.5	23.9	343	US-10-055-877-71	Sequence 71, App
7	375.5	22.2	323	US-10-980-388-119	Sequence 119, App
8	367.5	21.7	342	US-10-055-877-246	Sequence 246, App
9	366.5	21.7	319	US-10-055-877-247	Sequence 247, App
10	350	20.7	340	US-10-055-877-69	Sequence 69, App1
11	257.5	15.2	187	US-10-980-388-39	Sequence 39, App1
12	257.5	15.2	187	US-10-980-388-98	Sequence 98, App1
13	243	14.4	211	US-10-980-388-97	Sequence 97, App1
14	215.5	12.7	253	US-11-017-058-9	Sequence 9, App1
15	205	12.1	259	US-10-055-877-225	Sequence 225, App
16	205	12.1	259	US-10-055-877-237	Sequence 237, App
17	201	11.9	388	US-10-995-561-838	Sequence 838, App
18	201	11.9	389	US-10-995-561-837	Sequence 837, App
19	200.5	11.9	254	US-10-055-877-248	Sequence 248, App
20	200.5	11.9	254	US-10-055-877-327	Sequence 327, App
21	200.5	11.9	254	US-10-055-877-340	Sequence 340, App
22	200.5	11.9	254	US-10-877-346-83	Sequence 83, App1
23	196	11.6	350	US-10-502-145-1	Sequence 1, App1
24	196	11.6	350	US-11-169-976-9	Sequence 9, App1
25	195	11.5	333	US-11-127-877-57	Sequence 57, App1

26	190.5	11.3	342	US-11-151-482-1	Sequence 1, App1
27	189.5	11.2	342	US-11-151-482-3	Sequence 3, App1
28	187	11.1	269	US-11-151-482-5	Sequence 5, App1
29	182.5	10.8	346	US-11-157-930-2	Sequence 2, App1
30	176	10.4	340	US-10-980-388-117	Sequence 117, App
31	176	10.4	415	US-11-017-058-2	Sequence 2, App1
32	173	10.2	400	US-11-127-877-55	Sequence 55, App1
33	171	10.1	340	US-11-127-877-53	Sequence 53, App1
34	171	10.1	373	US-11-127-877-46	Sequence 46, App1
35	168.5	10.0	204	US-10-055-877-161	Sequence 161, App
36	168	9.9	351	US-11-122-849-2	Sequence 2, App1
37	164.5	9.7	359	US-10-995-561-712	Sequence 712, App
38	164.5	9.7	359	US-10-995-561-716	Sequence 716, App
39	164.5	9.7	359	US-10-876-787-2	Sequence 2, App1
40	164.5	9.7	359	US-11-127-877-65	Sequence 65, App1
41	164.5	9.7	388	US-10-995-561-713	Sequence 713, App
42	164.5	9.7	384	US-10-995-561-714	Sequence 714, App
43	164.5	9.7	394	US-10-995-561-715	Sequence 715, App
44	163.5	9.7	337	US-11-157-930-5	Sequence 5, App1
45	160.5	9.5	374	US-11-127-877-62	Sequence 62, App1

ALIGNMENTS

RESULT 1  
US-10-980-388-111  
Sequence 111, Application US/10980388  
Publication No. US20050255490A1  
GENERAL INFORMATION:  
APPLICANT: Vogteli, Gabriel  
APPLICANT: Parodi, Luis A.  
APPLICANT: Hiesch, Ronald R.  
APPLICANT: Lind, Peter  
APPLICANT: Kayes, Paul S.  
APPLICANT: Huff, Valerie  
APPLICANT: Huff, Rita M.  
APPLICANT: Wood, Linda S.  
TITLE OF INVENTION: Novel G Protein-Coupled Receptors Cross-Reference To Related Appl  
FILE REFERENCE: 00325 US1  
CURRENT APPLICATION NUMBER: US/10/980,388  
CURRENT FILING DATE: 2004-11-02  
PRIOR APPLICATION NUMBER: US/09/791,932  
PRIOR FILING DATE: 2001-02-23  
PRIOR APPLICATION NUMBER: 60/184,305  
PRIOR FILING DATE: 2000-02-23  
PRIOR APPLICATION NUMBER: 60/184,304  
PRIOR FILING DATE: 2000-02-23  
PRIOR APPLICATION NUMBER: 60/184,303  
PRIOR FILING DATE: 2000-02-23  
PRIOR APPLICATION NUMBER: 60/184,397  
PRIOR FILING DATE: 2000-02-23  
PRIOR APPLICATION NUMBER: 60/184,247  
PRIOR FILING DATE: 2000-02-23  
PRIOR APPLICATION NUMBER: 60/188,880  
PRIOR FILING DATE: 2000-03-13  
PRIOR APPLICATION NUMBER: 60/217,369  
PRIOR FILING DATE: 2000-07-11  
PRIOR APPLICATION NUMBER: 60/217,370  
PRIOR FILING DATE: 2000-07-11  
PRIOR APPLICATION NUMBER: 60/218,492  
PRIOR FILING DATE: 2000-07-20  
Remaining Prior Application data removed - See File Wrapper or PALM.  
NUMBER OF SEQ ID NOS: 184  
SOFTWARE: PatentIn version 3.0  
SEQ ID NO 111  
LENGTH: 311  
TYPE: PRT  
ORGANISM: Homo sapiens  
US-10-980-388-111  
Query Match 28.7%; Score 485.5; DB 6; Length 311;  
Best Local Similarity 38.5%; Pred. No. 3,5e-35;

	Matches	114; Conservative	51; Mismatches	120; Indels	11; Gaps	6;
QY	9	GTKLTLPNGREBETPCYNQTSFTGLTCTISLVAITGNAVYIMLGCRRRRRAVSYIIML				68
Ds	8	GOHGAANGAQEDVAFN--LIIISLTSELGIGGLIGNAVIMLLSSNYPFAIYLDV				65
QY	69	VAANFLELSGHIIFSPPLPLINIRHPISKILS--PVMFPFYIGLSMLSAISTERCISIL				125
Ds	66	ACADLIIFLGCHMAVAVPDLIGRDLPFGVQTSIATLRFYIVGSLSLAAVSVEQCIATL				125
QY	126	WPIWYHCRPRFYSWCVLMLALSLRSILEMWFCDLFEFGANSWCESTDFTIAMLV				185
Ds	126	FPAAWYSCRPHLITTCVATLWALCLLHLHLLSGCTQFSGSPSHLCRTIMLVAAVLLA				185
QY	186	FLCVVLGSSILVLRILGSRKMPLETRYIITLVLPVLLCGPFGCIQWALPSRIHLD				245
Ds	186	LLCCMCGASIMLLRVERGQRPBPFPFGIILITVLLFLFCGPFSGIYW--LSR-NLL				242
QY	246	WKULFCHHLVSIPLSALNSSANPPIYFVGSFRQRORQWIKVLQSLADDTPEV				301
Ds	243	WYIDHYFYNF--SLPMAAVHCAKAPVYVCISSAQQR--RLPLRLVLQSLQDEALV				295

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RESULT 2
US-10-980-388-62
Sequence 62, Application US/10980388
Publication No. US20050255490A1
GENERAL INFORMATION:
APPLICANT: Vogeli, Gabriel
APPLICANT: Parodi, Luis A.
APPLICANT: Hiebsch, Ronald R.
APPLICANT: Lind, Peter
APPLICANT: Kayles, Paul S.
APPLICANT: Ruff, Valerie
APPLICANT: Huf, Rita M.
TITLE OR INVENTION: Novel G Protein-Coupled Receptors Cross-Reference To Related Appl
FILE REFERENCE: 00325.US1
CURRENT APPLICATION NUMBER: US/10/980,388
CURRENT FILING DATE: 2004-11-02
PRIOR APPLICATION NUMBER: US/09/791,932
PRIOR FILING DATE: 2001-02-23
PRIOR APPLICATION NUMBER: 60/184,305
PRIOR FILING DATE: 2000-02-23
PRIOR APPLICATION NUMBER: 60/184,304
PRIOR FILING DATE: 2000-02-23
PRIOR APPLICATION NUMBER: 60/184,303
PRIOR FILING DATE: 2000-02-23
PRIOR APPLICATION NUMBER: 60/184,397
PRIOR FILING DATE: 2000-02-23
PRIOR APPLICATION NUMBER: 60/184,247
PRIOR FILING DATE: 2000-02-23
PRIOR APPLICATION NUMBER: 60/188,880
PRIOR FILING DATE: 2000-03-13
PRIOR APPLICATION NUMBER: 60/217,369
PRIOR FILING DATE: 2000-07-11
PRIOR APPLICATION NUMBER: 60/217,370
PRIOR FILING DATE: 2000-07-11
PRIOR APPLICATION NUMBER: 60/218,492
PRIOR FILING DATE: 2000-07-20
Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 184
SOFTWARE: PatentIn version 3.0
SEQ ID NO 62
LENGTH: 530
TYPE: PRT
ORGANISM: Homo sapiens
US-10-980-388-62
Query Match 28.7%; Score 485.5; DB 6; Length 530;
Best Local Similarity 38.5%; Pred.No.5,8e-35;
Matches 114; Conservative 51; Mismatches 120; Indels 11; Gaps 6;

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Qy 9 GTULATPINEEPPCNOQLSTFTGLTCLIALVLAQGNVVLMLGCRMRNRNAVSIYIINL 68
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 165 GQHVAGNAQOEUVAN--LTILSTEGAGLGLGNCAVNLSSNYRRPFAYITLDDV 22
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 69 VAANPLFLSGHIIIFSLPLINIRHPISKLS--PVMTPPYFGISMLSAISTERCISIL 12
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 223 ACADLTFFLGCHMAVAIPDLLOCRDPGGVQSTLATRECYIVGSLSLAAVSVBCCLMAL 28
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 126 WPIATYCRPRRYLSSVMCVLMAVLSLRISILEMMFPDCLFSGANVCBTSDFITAMLV 18
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 283 FPMATYSCRPRHLLTTCVCAITNALCLLHLLLSGACTQFPGSPRHLCRTLMVAAVILA 34
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 186 FLCVVLGGSSVLVLVRLCGSRMPRLTRYLTITLTVLVEFLGSLPFGIOMALBSRIHD 24
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 343 LLCCTMGASIMLLTVERGGPORPPRGCPGILITLVLLFLFCGSPFGIYW--LER-NIL 39
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Qy 246 WKVLYFCMVHVSIFELSSANAPIIYFVSGFSGRQUNQNKLYLQRLQDTPEV 301
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :
Db 400 WYIPHHFYTH-SLTMVAHVCAKFEVYFCLGSAQGR--RLPRLVQRLQSGEAL 452
      : : : : : : : : : : : : : : : : : : : : : : : : : : : : : :

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RESULT 3
US-10-980-388-113
; Sequence 113, Application US/10980388
; Publication No. US20050255490A1
; GENERAL INFORMATION:
; APPLICANT: Vogeli, Gabriel
; APPLICANT: Parodi, Luis A.
; APPLICANT: Hiebsch, Ronald R.
; APPLICANT: Lind, Peter
; APPLICANT: Kayles, Paul S.
; APPLICANT: Ruff, Valerie
; APPLICANT: Hufe, Rita M.
; APPLICANT: Wood, Linda S.
TITLE OF INVENTION: Novel G Protein-Coupled Receptors Cross-Reference To Related Appli
FILE REFERENCE: 00325-US1
CURRENT APPLICATION NUMBER: US/10/980,388
CURRENT FILING DATE: 2004-11-02
PRIOR APPLICATION NUMBER: US/09/791,932
PRIOR FILING DATE: 2001-02-23
PRIOR APPLICATION NUMBER: 60/184,305
PRIOR FILING DATE: 2000-02-23
PRIOR APPLICATION NUMBER: 60/184,304
PRIOR FILING DATE: 2000-02-23
PRIOR APPLICATION NUMBER: 60/184,303
PRIOR FILING DATE: 2000-02-23
PRIOR APPLICATION NUMBER: 60/184,397
PRIOR FILING DATE: 2000-02-23
PRIOR APPLICATION NUMBER: 60/184,247
PRIOR FILING DATE: 2000-02-23
PRIOR APPLICATION NUMBER: 60/188,880
PRIOR FILING DATE: 2000-03-13
PRIOR APPLICATION NUMBER: 60/217,369
PRIOR FILING DATE: 2000-07-11
PRIOR APPLICATION NUMBER: 60/217,370
PRIOR FILING DATE: 2000-07-11
PRIOR APPLICATION NUMBER: 60/218,492
PRIOR FILING DATE: 2000-07-20
Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 184
SOFTWARE: Patentin version 3.0
SEQ ID NO 113
LENGTH: 311
TYPE: PRT
ORGANISM: Homo sapiens
US-10-980-388-113

Query Match      28.4%; Score 479.5; DB 6; Length 311;
Best Local Similarity 38.2%; Pred. No. 1,1e-34;
Matches 113; Conservative 51; Mismatches 121; Indels 11; Gaps 6;

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/ FILE REFERENCE: 21402-251
/ CURRENT APPLICATION NUMBER: US/10/055,877
/ CURRENT FILING DATE: 2002-01-22
/ PRIOR APPLICATION NUMBER: 60/262,892
/ PRIOR FILING DATE: 2001-01-19
/ PRIOR APPLICATION NUMBER: 60/263,598
/ PRIOR FILING DATE: 2001-01-23
/ PRIOR APPLICATION NUMBER: 60/263,799
/ PRIOR FILING DATE: 2001-01-24
/ PRIOR APPLICATION NUMBER: 60/264,117
/ PRIOR FILING DATE: 2001-01-25
/ PRIOR APPLICATION NUMBER: 60/264,139
/ PRIOR FILING DATE: 2001-01-25
/ PRIOR APPLICATION NUMBER: 60/264,478
/ PRIOR FILING DATE: 2001-01-26
/ PRIOR APPLICATION NUMBER: 60/263,351
/ PRIOR FILING DATE: 2001-01-30
/ PRIOR APPLICATION NUMBER: 60/272,870
/ PRIOR FILING DATE: 2001-03-02
/ PRIOR APPLICATION NUMBER: 60/275,990
/ PRIOR FILING DATE: 2001-03-14
/ PRIOR APPLICATION NUMBER: 60/275,927
/ PRIOR FILING DATE: 2001-03-14
/ Remaining Prior Application data removed - See file wrapper or PALM.
/ NUMBER OF SEQ ID NOS: 512
/ SOFTWARE: PatentIn Ver. 2.1
/ SEQ ID NO 245
/ LENGTH: 343
/ TYPE: prt
/ ORGANISM: Homo sapiens
US-10-055-877-245
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Query Match      24.3%; Score 410.5; DB 6; Length 343;
Best Local Similarity 34.6%; Pred. No. 1,2e-28;
Matches 101; Conservative 53; Mismatches 117; Indels 21; Gaps 7;

QY 36 IISLVALTGNNAVVLMLGCRMRNNAVSIYILNVAANFLFSGHIIFFSPL-----PLI 88
DB 53 ILCICGLVNGVGLVLFPGFGRGAPGACRHMDFILGILFLCCPLMVLPCALILHVECRAR 112
QY 89 NTRHPISKLSIPVMTFPYFPGISMLSAISTERCLSTIMPIWYHCRPRYISSVMCVLMA 148
DB 113 DYIRSVCRVYGLCM--FLTGVSLRPAVSAERCASVIFPAWYRRRPKRLSAVVCALLMV 169
QY 149 ILSILRSILEMPCDFLFGSANSVWCETSD-FITIAMLVFLCVVLGSSIVLVRLICGSR 207
DB 170 ILSILVTCINHYFVFGFRGAPGACRHMDFILGILFLCCPLMVLPCALILHVECRAR 229
QY 208 KMPILT-RLVYTTILTVLVLFCGLPFGIOWALFSRIHLDW--KVLFCVHLVSIPLSALN 264
DB 230 RRGRSAKLHVILAMVSFVLVSSIYLGIDWFLF-----WVQIDPAPFPEYVTDLCICIN 283
QY 265 SSANPIITYFVGSFRQRQRNKLKYLORALDTPPEVDEGGMLPDE-TLEL 315
DB 284 SSAKPIYVFLAGRDKSQRLMEPLRVVFORALRDGAEIGEGSGTPTVTIEM 335

RESULT 6
US-10-055-877-71
/ Sequence 71, Application US/10055877
/ Publication No. US20050288241A1
/ GENERAL INFORMATION:
/ APPLICANT: Decristofaro, Marc
/ APPLICANT: Padigaru, Muralidhara
/ APPLICANT: Miller, Charles
/ APPLICANT: Tchernev, Velizar
/ APPLICANT: Zhong, Mei
/ APPLICANT: Anderson, David
/ APPLICANT: Ballinger, Robert
/ APPLICANT: Gerlach, Valerie
/ APPLICANT: Spytek, Kimberly
/ APPLICANT: Ratelli, Luca
/ APPLICANT: Kekuda, Rameesh
```

```
/ APPLICANT: Guo, Xiaojia
/ APPLICANT: Zernusen, Bryan
/ APPLICANT: Andrew, David
/ APPLICANT: Mezes, Peter
/ APPLICANT: Patuраjan, Meera
/ APPLICANT: Burgess, Catherine
/ APPLICANT: Eissen, Andrew
/ APPLICANT: Wolenc, Adam
/ APPLICANT: Baumgartner, Jason
/ APPLICANT: Shinkets, Richard
/ APPLICANT: Gusev, Vladimir
/ APPLICANT: Vernet, Corinne
/ APPLICANT: Taupier, Jr., Raymond
/ APPLICANT: Pena, Carol
/ APPLICANT: Shenoy, Suresh
/ APPLICANT: Li, Li
/ APPLICANT: Casman, Stacie
/ APPLICANT: Boldog, Ferenc
/ TITLE OF INVENTION: Novel Polypeptides and Nucleic Acids Encoded Thereby
/ FILE REFERENCE: 21402-251
/ CURRENT APPLICATION NUMBER: US/10/055,877
/ CURRENT FILING DATE: 2002-01-22
/ PRIOR APPLICATION NUMBER: 60/262,892
/ PRIOR FILING DATE: 2001-01-19
/ PRIOR APPLICATION NUMBER: 60/263,598
/ PRIOR FILING DATE: 2001-01-23
/ PRIOR APPLICATION NUMBER: 60/263,799
/ PRIOR FILING DATE: 2001-01-24
/ PRIOR APPLICATION NUMBER: 60/264,117
/ PRIOR FILING DATE: 2001-01-25
/ PRIOR APPLICATION NUMBER: 60/264,139
/ PRIOR FILING DATE: 2001-01-25
/ PRIOR APPLICATION NUMBER: 60/264,478
/ PRIOR FILING DATE: 2001-01-26
/ PRIOR APPLICATION NUMBER: 60/263,351
/ PRIOR FILING DATE: 2001-01-30
/ PRIOR APPLICATION NUMBER: 60/272,870
/ PRIOR FILING DATE: 2001-03-02
/ PRIOR APPLICATION NUMBER: 60/275,990
/ PRIOR FILING DATE: 2001-03-14
/ PRIOR APPLICATION NUMBER: 60/275,927
/ PRIOR FILING DATE: 2001-03-14
/ Remaining Prior Application data removed - See file wrapper or PALM.
/ NUMBER OF SEQ ID NOS: 512
/ SOFTWARE: PatentIn Ver. 2.1
/ SEQ ID NO 71
/ LENGTH: 343
/ TYPE: prt
/ ORGANISM: Homo sapiens
US-10-055-877-71

Query Match      23.9%; Score 403.5; DB 6; Length 343;
Best Local Similarity 34.2%; Pred. No. 4,7e-28;
Matches 100; Conservative 53; Mismatches 118; Indels 21; Gaps 7;

QY 36 IISLVALTGNNAVVLMLGCRMRNNAVSIYILNVAANFLFSGHIIFFSPL-----PLI 88
DB 53 ILCICGLVNGVGLVLFPGFGRGAPGACRHMDFILGILFLCCPLMVLPCALILHVECRAR 112
QY 89 NTRHPISKLSIPVMTFPYFPGISMLSAISTERCLSTIMPIWYHCRPRYISSVMCVLMA 148
DB 113 DYIRSVCRVYGLCM--FLTGVSLRPAVSAERCASVIFPAWYRRRPKRLSAVVCALLMV 169
QY 149 ILSILRSILEMPCDFLFGSANSVWCETSD-FITIAMLVFLCVVLGSSIVLVRLICGSR 207
DB 170 ILSILVTCINHYFVFGFRGAPGACRHMDFILGILFLCCPLMVLPCALILHVECRAR 229
QY 208 KMPILT-RLVYTTILTVLVLFCGLPFGIOWALFSRIHLDW--KVLFCVHLVSIPLSALN 264
DB 230 RRGRSAKLHVILAMVSFVLVSSIYLGIDWFLF-----WVQIDPAPFPEYVTDLCICIN 283
QY 265 SSANPIITYFVGSFRQRQRNKLKYLORALDTPPEVDEGGMLPDE-TLEL 315
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DB      284 SSAKPIVYFLAGRDKSQRLMEPLRVFORALRDGALGNGSGTPTVTMMEM 335

RESULT 7
US-10-980-388-119
; Sequence 119, Application US/10980388
; Publication No. US20050255490A1
; GENERAL INFORMATION:
; APPLICANT: Vogel, Gabriel
; APPLICANT: Parodi, Luis A.
; APPLICANT: Hiebsch, Ronald R.
; APPLICANT: Lind, Peter
; APPLICANT: Kaytes, Paul S.
; APPLICANT: Huff, Valerie
; APPLICANT: Huff, Rita M.
; APPLICANT: Wood, Linda S.
; TITLE OF INVENTION: Novel G Protein-Coupled Receptors Cross-Reference To Related Appl
; FILE REFERENCE: 00325.US1
; CURRENT APPLICATION NUMBER: US/10/980,388
; CURRENT FILING DATE: 2004-11-02
; PRIOR APPLICATION NUMBER: US/09/791,932
; PRIOR FILING DATE: 2001-02-23
; PRIOR APPLICATION NUMBER: 60/184,305
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: 60/184,304
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: 60/184,303
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: 60/184,397
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: 60/184,247
; PRIOR FILING DATE: 2000-02-23
; PRIOR APPLICATION NUMBER: 60/188,880
; PRIOR FILING DATE: 2000-03-13
; PRIOR APPLICATION NUMBER: 60/217,369
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 60/217,370
; PRIOR FILING DATE: 2000-07-11
; PRIOR APPLICATION NUMBER: 60/218,492
; PRIOR FILING DATE: 2000-07-20
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 184
; SOFTWARE: PatentIn version 3.0
; SEQ ID NO 119
; LENGTH: 323
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-980-388-119

Query Match      22.2%; Score 375.5; DB 6; Length 323;
Best Local Similarity 35.4%; Pred. No. 1,2e-25;
Matches 102; Conservative 48; Mismatches 115; Indels 23; Gaps 6;

DB      33 LFCIISLVALTGNAVVLMLGCRMRNNAVSIYILNVANFLPLSGHIIIFSPILINIR 92
DB      52 LTLIVLGLGPGVAGGLVLMILAAFGVIRKPGFSIYLHLAADFLPLSGVGS--VAQAAL 108
QY      93 PLSKLSPVMTPEPYF-IGSMLSAISTEBCLSLTPMFWHCRRRRLSSVMCTLMAAL 151
DB      109 GAQDTLYFLVLTPLMFWGVMLLAAFSVERCLSDLPFACQGCPRIASAVLCAVWTPPTL 168
QY      152 LRSILEMWFCDPLFGSANSVMCETSDPITIAMLVFICVVLICSSLYLVRIICGSRKMP 211
DB      169 PAVPLPANNAGLIRNSACPLVCRHYVASVTWFLVLAARYAMTAGVLLFWVWTCSTR-PR 227
QY      212 TRLVYTLITLVFLVLCGLPFGIQALFSRIHLDMKVLFCVHLVSIF-----ISALNS 265
DB      228 PRLVYGLVGLLTLFLFCGLPSVFWYMSLQPLNF-----LIPVFSPLATLLACVNS 277
QY      266 SANPLIYFVGSFRONRONKLIVQRLADPTEVDEBGGMLPQETL 313
DB      278 SSRPLIYSGLG--RQPKREPLRSVLRRLGEGAEIARGQSLPWGL 323
```

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RESULT 8
US-10-055-877-246
; Sequence 246, Application US/10055877
; Publication No. US20050288241A1
; GENERAL INFORMATION:
; APPLICANT: Decristofaro, Marc
; APPLICANT: Padigar, Muralidhara
; APPLICANT: Miller, Charles
; APPLICANT: Tchernev, Velizar
; APPLICANT: Zhong, Mei
; APPLICANT: Anderson, David
; APPLICANT: Ballinger, Robert
; APPLICANT: Gerlach, Valerie
; APPLICANT: Spytek, Kimberly
; APPLICANT: Ratelli, Luca
; APPLICANT: Kekuda, Ramesh
; APPLICANT: Guo, Xiaojia
; APPLICANT: Zerhusen, Bryan
; APPLICANT: Andrew, David
; APPLICANT: Mezes, Peter
; APPLICANT: Paturajan, Meera
; APPLICANT: Burgess, Catherine
; APPLICANT: Eissen, Andrew
; APPLICANT: Wolenc, Adam
; APPLICANT: Baumgartner, Jason
; APPLICANT: Shimkets, Richard
; APPLICANT: Gusev, Vladimir
; APPLICANT: Vernet, Corinne
; APPLICANT: Taupier Jr., Raymond
; APPLICANT: Pena, Carol
; APPLICANT: Shenoy, Suresh
; APPLICANT: Li, Li
; APPLICANT: Casman, Stacie
; APPLICANT: Boldog, Perence
; TITLE OF INVENTION: Novel Polypeptides and Nucleic Acids Encoded Thereby
; FILE REFERENCE: 21402-251
; CURRENT APPLICATION NUMBER: US/10/055,877
; CURRENT FILING DATE: 2002-01-22
; PRIOR APPLICATION NUMBER: 60/262,892
; PRIOR FILING DATE: 2001-01-19
; PRIOR APPLICATION NUMBER: 60/263,598
; PRIOR FILING DATE: 2001-01-23
; PRIOR APPLICATION NUMBER: 60/263,799
; PRIOR FILING DATE: 2001-01-24
; PRIOR APPLICATION NUMBER: 60/264,117
; PRIOR FILING DATE: 2001-01-25
; PRIOR APPLICATION NUMBER: 60/264,139
; PRIOR FILING DATE: 2001-01-25
; PRIOR APPLICATION NUMBER: 60/264,478
; PRIOR FILING DATE: 2001-01-26
; PRIOR APPLICATION NUMBER: 60/263,351
; PRIOR FILING DATE: 2001-01-30
; PRIOR APPLICATION NUMBER: 60/272,870
; PRIOR FILING DATE: 2001-03-02
; PRIOR APPLICATION NUMBER: 60/275,990
; PRIOR FILING DATE: 2001-03-14
; PRIOR APPLICATION NUMBER: 60/275,927
; PRIOR FILING DATE: 2001-03-14
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 512
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 246
; LENGTH: 342
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-055-877-246

Query Match      21.7%; Score 367.5; DB 6; Length 342;
Best Local Similarity 32.4%; Pred. No. 6.1e-25;
Matches 96; Conservative 61; Mismatches 110; Indels 29; Gaps 10;

QY      36 IISLVALTGNAVVLMLGCRMRNNAVSIYILNVANFLPLSGHIIIFSPILINIR---- 91
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Db 52 LKLCGLVNGVLWFFGFSIKRTPEISYFELHLASADGYLFSKAV--IALNMGTFLG 108
Qy 92 -----HPIISKILSPVTPPYFIFGLSMLSAISTERCLSIIMPWYHCRPRYLSSVMCV 145
Db 109 SPPDYIRRVSRIVG-LCTF--FAGVSLPAISIERCVSVIFPTWYRRRRPKRLSAGVCA 165
Qy 146 LMLSLSLRSILEMFCDFLFSGANSWCETSDFTITAMLVF--LCVVLGSSIVLVRL 203
Db 166 LMLSLFLVTSIHNYFCMFLGHEASGACINMD-ISGLILFLFCPLMVLPCIALIHVE 224
Qy 204 CGSRKMPLT-RLVYITLLVTVFLGCLFPGIOMALFSIHLDW--KVLFCVHLVYSIL 260
Db 225 CRARRRQRSKAKLNHVLAIVSVFLVSSIVLGIWDFL-----WFOIPAPPEEYVTDLC 278
Qy 261 SALNSANPIIYFVFGSPFORONRQNLKVLQALODTPEVDEGGMLPOE--TLEL 315
Db 279 ICINSSAKPIVYFLAGRDKSQRLMEPLRVYFQALRDGAEPGDASTNTVTYTMEM 334
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RESULT 9  
US-10-055-877-247

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Sequence 247, Application US/10055877
Publication No. US20050288241A1
GENERAL INFORMATION:
APPLICANT: Decristofaro, Marc
APPLICANT: Padigarau, Muralidhara
APPLICANT: Miller, Charles
APPLICANT: Tchernev, Velizar
APPLICANT: Zhong, Mei
APPLICANT: Anderson, David
APPLICANT: Ballinger, Robert
APPLICANT: Gerlach, Valerie
APPLICANT: Spytek, Kimberly
APPLICANT: Ratelli, Luca
APPLICANT: Rukuda, Ramesh
APPLICANT: Guo, Xiaojia
APPLICANT: Zerhusen, Bryan
APPLICANT: Andrews, David
APPLICANT: Mezes, Peter
APPLICANT: Paturajan, Meera
APPLICANT: Burgess, Catherine
APPLICANT: Eissen, Andrew
APPLICANT: Wolenc, Adam
APPLICANT: Baumgartner, Jason
APPLICANT: Shinkets, Richard
APPLICANT: Gusev, Vladimir
APPLICANT: Verniet, Corine
APPLICANT: Taupier Jr., Raymond
APPLICANT: Pena, Carol
APPLICANT: Shenoy, Suresh
APPLICANT: Li, Li
APPLICANT: Casman, Stacie
APPLICANT: Boldog, Ference
TITLE OF INVENTION: Novel Polypeptides and Nucleic Acids Encoded Thereby
FILE REFERENCE: 21402-251
CURRENT APPLICATION NUMBER: US/10/055,877
PRIOR FILING DATE: 2002-01-22
PRIOR APPLICATION NUMBER: 60/262,892
PRIOR FILING DATE: 2001-01-19
PRIOR APPLICATION NUMBER: 60/263,598
PRIOR FILING DATE: 2001-01-23
PRIOR APPLICATION NUMBER: 60/263,799
PRIOR FILING DATE: 2001-01-24
PRIOR APPLICATION NUMBER: 60/264,117
PRIOR FILING DATE: 2001-01-25
PRIOR APPLICATION NUMBER: 60/264,139
PRIOR FILING DATE: 2001-01-25
PRIOR APPLICATION NUMBER: 60/264,478
PRIOR FILING DATE: 2001-01-26
PRIOR APPLICATION NUMBER: 60/263,351
PRIOR FILING DATE: 2001-01-30
PRIOR APPLICATION NUMBER: 60/272,870
```

```

; PRIOR FILING DATE: 2001-03-02
; PRIOR APPLICATION NUMBER: 60/275,990
; PRIOR FILING DATE: 2001-03-14
; PRIOR APPLICATION NUMBER: 60/275,927
; PRIOR FILING DATE: 2001-03-14
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 512
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 247
; LENGTH: 319
; TYPE: PRT
; ORGANISM: Mus musculus
US-10-055-877-247
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Query Match          21.7%; Score 366.5; DB 6; Length 319,
Best Local Similarity 33.1%; Pred. No. 6,9e-25;
Matches 98; Conservative 55; Mismatches 114; Indels 29; Gaps 10;
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Qy 36 IISVALTGNNAVYWLGRMRNRNAVSTIYTLNVANFLFSGHIIIFSPPLIN----- 69
Db 29 LKLCGLVNGVLWFFGFSIKRTPEISYFELHLASADGYLFSKAV--IALNMGTFLG 85
Qy 90 -----IRHPIISKILSPVTPPYFIFGLSMLSAISTERCLSIIMPWYHCRPRYLSSVMCV 144
Db 86 SPPDYIRRVSRIVG-LCTF--FTGVSLPAISIERCVSVIFPTWYRRRRPKRLSAGVCA 141
Qy 145 LMLSLSLRSILEMFCDFLFSGANSWCETSDFTITAMLVFL--CVVLGSSIVLVRL 203
Db 142 LMLSLFLVTSIHNYFCMFLGHEAPGTVCRRNMDIALGILLFLFCPLMVLPCIALIHVE 201
Qy 204 CGSRKMPLT-RLVYITLLVTVFLGCLFPGIOMALFSIHLDW--KVLFCVHLVYSIL 260
Db 202 CRARRRQRSKAKLNHVLAIVSVFLVSSIVLGIWDFL-----WFOIPAPPEEYVTDLC 255
Qy 261 SALNSANPIIYFVFGSPFORONRQNLKVLQALODTPEVDEGGMLPOE--TLEL 315
Db 256 ICINSSAKPIVYFLAGRDKSQRLMEPLRVYFQALRDGAEPGDASTNTVTYTMEM 311
```

RESULT 10  
US-10-055-877-69

```
Sequence 69, Application US/10055877
Publication No. US20050288241A1
GENERAL INFORMATION:
APPLICANT: Decristofaro, Marc
APPLICANT: Padigarau, Muralidhara
APPLICANT: Miller, Charles
APPLICANT: Tchernev, Velizar
APPLICANT: Zhong, Mei
APPLICANT: Anderson, David
APPLICANT: Ballinger, Robert
APPLICANT: Gerlach, Valerie
APPLICANT: Spytek, Kimberly
APPLICANT: Ratelli, Luca
APPLICANT: Rukuda, Ramesh
APPLICANT: Guo, Xiaojia
APPLICANT: Zerhusen, Bryan
APPLICANT: Andrews, David
APPLICANT: Mezes, Peter
APPLICANT: Paturajan, Meera
APPLICANT: Burgess, Catherine
APPLICANT: Eissen, Andrew
APPLICANT: Wolenc, Adam
APPLICANT: Baumgartner, Jason
APPLICANT: Shinkets, Richard
APPLICANT: Gusev, Vladimir
APPLICANT: Verniet, Corine
APPLICANT: Taupier Jr., Raymond
APPLICANT: Pena, Carol
APPLICANT: Shenoy, Suresh
APPLICANT: Li, Li
APPLICANT: Casman, Stacie
APPLICANT: Boldog, Ference
```

TITLE OF INVENTION: Novel Polypeptides and Nucleic Acids Encoded Thereby  
FILE REFERENCE: 21402-251  
CURRENT APPLICATION NUMBER: US/10/055,877  
CURRENT FILING DATE: 2002-01-22  
PRIOR APPLICATION NUMBER: 60/262,892  
PRIOR FILING DATE: 2001-01-19  
PRIOR APPLICATION NUMBER: 60/263,598  
PRIOR FILING DATE: 2001-01-23  
PRIOR APPLICATION NUMBER: 60/263,799  
PRIOR FILING DATE: 2001-01-24  
PRIOR APPLICATION NUMBER: 60/264,117  
PRIOR FILING DATE: 2001-01-25  
PRIOR APPLICATION NUMBER: 60/264,139  
PRIOR FILING DATE: 2001-01-25  
PRIOR APPLICATION NUMBER: 60/264,478  
PRIOR FILING DATE: 2001-01-26  
PRIOR APPLICATION NUMBER: 60/263,351  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: 60/272,870  
PRIOR FILING DATE: 2001-03-02  
PRIOR APPLICATION NUMBER: 60/275,990  
PRIOR FILING DATE: 2001-03-14  
PRIOR APPLICATION NUMBER: 60/275,927  
PRIOR FILING DATE: 2001-03-14  
Remaining Prior Application data removed - See File Wrapper or PALM.  
NUMBER OF SEQ ID NOS: 512  
SOFTWARE: PatentIn Ver. 2.1  
SEQ ID NO 69  
LENGTH: 340  
TYPE: PRT  
ORGANISM: Homo sapiens  
US-10-055-877-69

Query Match 20.7%; Score 350; DB 6; Length 340;  
Best Local Similarity 33.1%; Pred. No. 2e-23;

Matches 89; Conservative 43; Mismatches 117; Indels 20; Gaps 6;

QY 36 IISLVALTGNNAVYLLGCRMRNNAVSIYILNVANFLFSGHILFSPD-----PFI 88  
DB 53 ILCLGGLVNGVILVWFSGISIKRNPSIYFLHLASADVILFSGKAVFSILNCGFLGTRA 112  
QY 89 NHRHPSKILSVPMTPFYPIGISMLSAISTERCLSLTPIWTHCRPRRYLSSVMCLVLA 148  
DB 113 DYIRSVCRVTLGCM--FLTGVSLPVAVSACASVYIPAMWRRPRKSLNAVVALWV 169  
QY 149 LSLLSLSEIMFCDPLFSGANSVWCETSD-FITIAVLVFLCVLGGSSVLVRLIGSR 207  
DB 170 LSLVLTCLNHYCFVLGRGAPGACCRHMDIFLGILFLCCPLMVLPCIALILHVEGPD 229  
QY 208 KMPRLVYVITLLTVLVFLLCGLPFGIQWALFSRIHLDM--KVLFGVHLVSGIFLSALNS 265  
DB 230 GPRSAKLKHVILLAMSVFLVSSYIGIDWFLF-----VWFQIPAFPEVYVDLCICINS 283  
QY 266 SANPIYFVFGSFRQRQNFQNLKLVQRA 294  
DB 284 SAKPIYVFLAGR-TSRSGCMSLRVVFGA 311

## RESULT 11

US-10-980-388-39  
Sequence 39, Application US/10980388  
Publication No. US20050255490A1  
GENERAL INFORMATION:  
APPLICANT: Vogelii, Gabriel  
APPLICANT: Parodi, Luis A.  
APPLICANT: Hiebsch, Ronald R.  
APPLICANT: Lind, Peter  
APPLICANT: Kayes, Paul S.  
APPLICANT: Ruff, Valerie  
APPLICANT: Huff, Rita M.  
APPLICANT: Wood, Linda S.  
TITLE OF INVENTION: Novel G Protein-Coupled Receptors Cross-Reference To Related Appl  
FILE REFERENCE: 00325, US1

CURRENT APPLICATION NUMBER: US/10/980,388  
CURRENT FILING DATE: 2004-11-02  
PRIOR APPLICATION NUMBER: US/09/791,932  
PRIOR FILING DATE: 2001-02-23  
PRIOR APPLICATION NUMBER: 60/184,305  
PRIOR FILING DATE: 2000-02-23  
PRIOR APPLICATION NUMBER: 60/184,304  
PRIOR FILING DATE: 2000-02-23  
PRIOR APPLICATION NUMBER: 60/184,303  
PRIOR FILING DATE: 2000-02-23  
PRIOR APPLICATION NUMBER: 60/184,397  
PRIOR FILING DATE: 2000-02-23  
PRIOR APPLICATION NUMBER: 60/184,247  
PRIOR FILING DATE: 2000-02-23  
PRIOR APPLICATION NUMBER: 60/188,880  
PRIOR FILING DATE: 2000-03-13  
PRIOR APPLICATION NUMBER: 60/217,369  
PRIOR FILING DATE: 2000-07-11  
PRIOR APPLICATION NUMBER: 60/217,370  
PRIOR FILING DATE: 2000-07-11  
PRIOR APPLICATION NUMBER: 60/218,492  
PRIOR FILING DATE: 2000-07-20  
Remaining Prior Application data removed - See File Wrapper or PALM.  
NUMBER OF SEQ ID NOS: 184  
SOFTWARE: PatentIn version 3.0  
SEQ ID NO 39  
LENGTH: 187  
TYPE: PRT  
ORGANISM: Homo sapiens  
US-10-980-388-39

Query Match 15.2%; Score 257.5; DB 6; Length 187;  
Best Local Similarity 36.1%; Pred. No. 1.1e-15;  
Matches 57; Conservative 32; Mismatches 64; Indels 5; Gaps 3;

QY 58 RNVASIIYL-NLVANFLFSGHILFSPDILNIR--HP--ISKILSPVMTFPYIGLSM 112  
DB 3 RNPFAIYLLVRGLQDILFLGCHWVAIVPDLQGRUDFGFVQTSIATRFICYIGLSL 62  
QY 113 LSAISTERCLSLTPIWTHCRPRRYLSSVMCLVLAISLIRILEMFCDFLFGANSW 172  
DB 63 LAAVSVEQCLALFPVWVSCRRPRRLTTCVCAITWALCLLHLILSSACTQFFGERSRL 122  
QY 173 CETSDFITIAMVFLCVLGGSSVLVRLIGSRMP 210  
DB 123 CRTLMVAVALALLCCTMCGASLMLLRVERGPQRP 160

## RESULT 12

US-10-980-388-98  
Sequence 98, Application US/10980388  
Publication No. US20050255490A1  
GENERAL INFORMATION:  
APPLICANT: Vogelii, Gabriel  
APPLICANT: Parodi, Luis A.  
APPLICANT: Hiebsch, Ronald R.  
APPLICANT: Lind, Peter  
APPLICANT: Kayes, Paul S.  
APPLICANT: Ruff, Valerie  
APPLICANT: Huff, Rita M.  
APPLICANT: Wood, Linda S.  
TITLE OF INVENTION: Novel G Protein-Coupled Receptors Cross-Reference To Related Appl  
FILE REFERENCE: 00325, US1  
CURRENT APPLICATION NUMBER: US/10/980,388  
CURRENT FILING DATE: 2004-11-02  
PRIOR APPLICATION NUMBER: US/09/791,932  
PRIOR FILING DATE: 2001-02-23  
PRIOR APPLICATION NUMBER: 60/184,305  
PRIOR FILING DATE: 2000-02-23  
PRIOR APPLICATION NUMBER: 60/184,304  
PRIOR FILING DATE: 2000-02-23  
PRIOR APPLICATION NUMBER: 60/184,303  
PRIOR FILING DATE: 2000-02-23

[illegible]

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PRIORITY APPLICATION NUMBER: 60/218,492
PRIOR FILING DATE: 2000-07-20
Remaining Prior Application data removed - See File Wrapper or PALM.
NUMBER OF SEQ ID NOS: 184
SOFTWARE: PatentIn version 3.0
SEQ ID NO 97
LENGTH: 211
TYPE: PRT
ORGANISM: Homo sapiens
US-10-980-388-97

Query Match          14.4%; Score 243; DB 6; Length 211;
Best Local Similarity 38.4%; Pred. No. 2,2e-14;
Matches 61; Conservative 26; Mismatches 68; Indels 4; Gaps 2;

Db      33  LTTCTISLVALTGNAVIMLIGCRMRNNAVSIIYIINLVANFLPISGHITSPPLNIRH 92
      52  LTLVLGCGPANGVLVIMNIGFRKKGPFSIYLHLMAAFLPFSCHVGS--VAQAAL 108
Qy      93  PISKILSPWMTPEPF-IGLSMTLSISNERCISITMPITMYHCRBRYSVSWCVLLMALSL 151
      109  GAQDTLYFVLTPEMFVAVGLWLLAFVSERCUSDLPACTYGCGRRAHSAVLCALWPTL 168
Db      152  LRSILEWMPGDFLFGSANSVWCETSDFTITAMVFLCV 190
      169  PAVPLPANACGLRNSACPVCPRHYVASVWFLVARV 207

RESULT 14
US-11-017-058-9
Sequence 9, Application US/11017058
Publication No. US20060014243A1
GENERAL INFORMATION:
APPLICANT: LI, YI
TITLE OF INVENTION: Human G-Protein Chemokine Receptor HSATU68
FILE REFERENCE: PF218C1
CURRENT APPLICATION NUMBER: US/11/017,058
CURRENT FILING DATE: 2004-12-21
PRIOR APPLICATION NUMBER: US 09/101,518
PRIOR FILING DATE: 1998-12-21
PRIOR APPLICATION NUMBER: PCT/US96/00499
PRIOR FILING DATE: 1996-01-11
NUMBER OF SEQ ID NOS: 9
SOFTWARE: PatentIn version 3.1
SEQ ID NO 9
LENGTH: 353
TYPE: PRT
ORGANISM: Homo sapiens
US-11-017-058-9

Query Match          12.7%; Score 215.5; DB 7; Length 353;
Best Local Similarity 26.3%; Pred. No. 8.7e-12;
Matches 81; Conservative 55; Mismatches 105; Indels 67; Gaps 13

Qy      19  EETPCVNOTLSFTG-----LTCIISLVALTGNA-VLWMLGCRMRNNAVSIIYIINLVAN 72
      29  DAAPCEPSLSINKTFVYITVYALVFLSLGNSLVMLVYIYSRVSRTVDYLTNLALAD 88
Db      73  FLF-----LSGHIIFSPLPLNIRHPISKILSPWMTPEFYFGLSMTLSAISTERC 121
      89  LFLALFLPIWASKNGWIFGTFL-----CQVSLSLKRVNYSGLILLACISVRY 139
Qy      122  LSILMPITRYCHCR---PRYSSVWCVLLMALSLRSITLWMPGDFLFGSANSVWC-ETS 176
      140  LAIV-----HMYRTLTQRYVTKFCLISWIGSLTLLALVLLFRTVYSSNVSPACIEDM 194
Db      177  DPTITAMVFLPCVV--LCGSSSLVLLVRILC-GSRKMPYLRVY-----TILLTVLF 225
      195  GNNITAMKMLKRLILQSGFGFIYPLIMLFCTYGTFLRTLFKAMGQKRAMRYIPAVVLF 254
Qy      226  LILGGLPFG-----IQMALFSRIHLDKVLFCVHLVSIPLSALNSANPITY 272
      255  LILCWLPYMLVLADDTLMRTQVIGETCCERRNHIDRALDATEI-----LGIHSCUNPLIY 308

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QY 273 PFVG-SFR 279  
Db 309 AFIGQKFR 316

## RESULT 15

US-10-055-877-225  
Sequence 225, Application US/10055877  
Publication No. US20050288241A1  
GENERAL INFORMATION:  
APPLICANT: Decristofaro, Marc  
APPLICANT: Padigaru, Muralidhara  
APPLICANT: Miller, Charles  
APPLICANT: Tchernev, Velizar  
APPLICANT: Zhong, Mei  
APPLICANT: Anderson, David  
APPLICANT: Ballinger, Robert  
APPLICANT: Gerlach, Valerie  
APPLICANT: Spytek, Kimberly  
APPLICANT: Ratelli, Luca  
APPLICANT: Kekuda, Ramesh  
APPLICANT: Guo, Xiaojia  
APPLICANT: Zerhusen, Bryan  
APPLICANT: Andrew, David  
APPLICANT: Wezes, Peter  
APPLICANT: Patuturajan, Meera  
APPLICANT: Burgess, Catherine  
APPLICANT: Eissen, Andrew  
APPLICANT: Molenc, Adam  
APPLICANT: Baumgartner, Jason  
APPLICANT: Shimkets, Richard  
APPLICANT: Gusev, Vladimir  
APPLICANT: Vermet, Corine  
APPLICANT: Taupier Jr., Raymond  
APPLICANT: Pena, Carol  
APPLICANT: Shenoy, Suresh  
APPLICANT: Li, Li  
APPLICANT: Casman, Stacie  
APPLICANT: Boldog, Ferenc  
TITLE OF INVENTION: Novel Polypeptides and Nucleic Acids Encoded Thereby  
FILE REFERENCE: 21402-251  
CURRENT APPLICATION NUMBER: US/10/055,877  
CURRENT FILING DATE: 2002-01-22  
PRIOR APPLICATION NUMBER: 60/262,892  
PRIOR FILING DATE: 2001-01-19  
PRIOR APPLICATION NUMBER: 60/263,598  
PRIOR FILING DATE: 2001-01-23  
PRIOR APPLICATION NUMBER: 60/263,799  
PRIOR FILING DATE: 2001-01-24  
PRIOR APPLICATION NUMBER: 60/264,117  
PRIOR FILING DATE: 2001-01-25  
PRIOR APPLICATION NUMBER: 60/264,139  
PRIOR FILING DATE: 2001-01-25  
PRIOR APPLICATION NUMBER: 60/264,478  
PRIOR FILING DATE: 2001-01-26  
PRIOR APPLICATION NUMBER: 60/263,351  
PRIOR FILING DATE: 2001-01-30  
PRIOR APPLICATION NUMBER: 60/272,870  
PRIOR FILING DATE: 2001-03-02  
PRIOR APPLICATION NUMBER: 60/275,990  
PRIOR FILING DATE: 2001-03-14  
PRIOR APPLICATION NUMBER: 60/275,927  
PRIOR FILING DATE: 2001-03-14  
Remaining Prior Application data removed - See File Wrapper or PALM.  
NUMBER OF SEQ ID NOS: 512  
SOFTWARE: PatentIn Ver. 2.1  
SEQ ID NO 225  
LENGTH: 259  
TYPE: PRT  
ORGANISM: Artificial Sequence  
FEATURE:  
OTHER INFORMATION: Description of Artificial Sequence: 7tm\_1 domain

OTHER INFORMATION: consensus sequence  
US-10-055-877-225

Query Match 12.1%; Score 205; DB 6; Length 259;  
Best Local Similarity 29.2%; Pred. No. 5.2e-11;  
Matches 80; Conservative 46; Mismatches 88; Indels 60; Gaps 12;

QY 44 GN-AVVLMLGCRMRNAVSIYILNLVAANFLFLSGHIIFFSPLPLINI-----RHP 93  
Db 1 GNLLVILVILRTKQKRTPTNIFILNLAVADLFL--LTLPPVALYYLVGSGEDWPGSA 57  
QY 94 ISKILSPVMTFFPIFGLSMLSAISTERCLSIIMPVTHCR--PRYLSSMCVLNALSL 151  
Db 58 LCKLVTLVNVNMYASILLTLTAISIDRYALVHPVRRRTSPR-RAKVIVLLVWVTLAL 116  
QY 152 LRSILEMWFCDPLFSGANSV-----WCETSPFITIAWL--VFLCVLC 192  
Db 117 LLSL-----PPLIFSVKTVBEGNGTLNANNVTVCILDFPEBSTASVSTWLRSYVLSLTV 171  
QY 193 GSSLVLLVRLCGSRKM-PLTRLYVTILTVLVFLCGHPFGIQWALFSRIHLDWRYL-- 249  
Db 172 GFLPLVILVIVCYTRLIRLTKRAKATLLVVVVVFCWLPY-----FVLLLDITLCLSI 225  
QY 250 ----FCHV-----LVSIFLSALNSSANPITY 272  
Db 226 IMSSTCLELRVLPALVTLVIMLAVVNSCLNPITY 259

Search completed: February 3, 2006, 20:47:18  
Job time : 17 secs

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November 2005

Published\_Applications Nucleic Acid and Published\_Applications Amino Acid database searches now generate two sets of results each. The Published\_Applications databases have been split into two parts to reduce the amount of time required for their daily updates. This results in more machine time being available for processing searches.

Newly published applications will appear in the Published\_Applications\_New databases; older published applications make up the Published\_Applications\_Main databases.

- Searches run against Nucleic Acid Published\_Applications produce two sets of results, with the extensions **.rnpbm** (Published\_Applications\_NA\_Main) and **.rnpbn** (Published\_Applications\_NA\_New).
- Searches run against Amino Acid Published\_Applications produce two sets of results, with the extensions **.rapbm** (Published\_Applications\_AA\_Main) and **.rapbn** (Published\_Applications\_AA\_New).

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